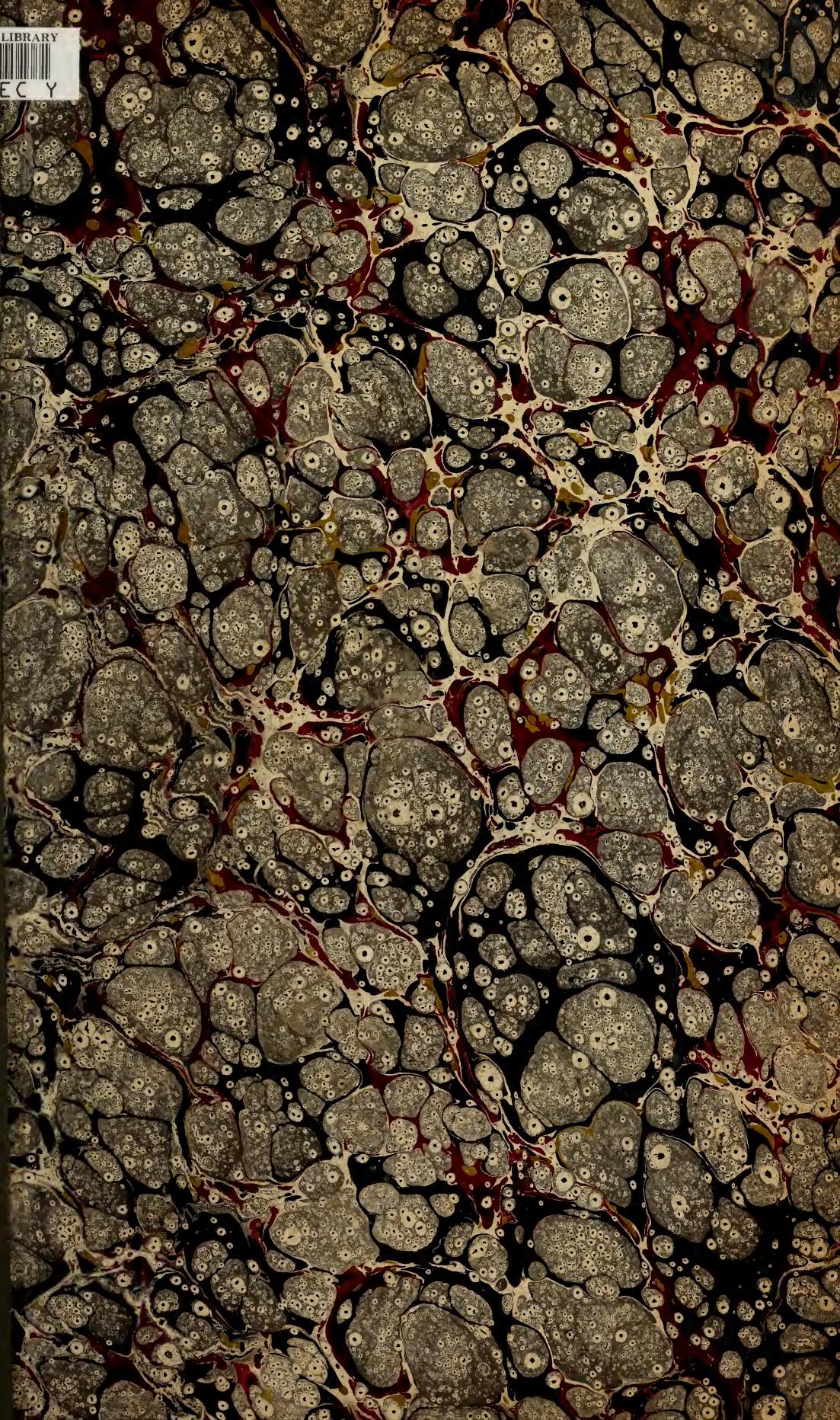


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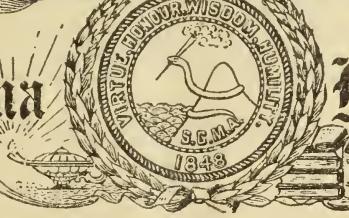
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South Carolina Medical Association



Vol. IX.

SENECA, S. C., JANUARY, 1913

No. 1.

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All matters must be in the hands of the Editor by the 30th of each month. Proofs of all original articles appearing in the JOURNAL are revised and corrected by their authors. The JOURNAL is in no sense responsible for expressions in original articles.

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Vol. IX.**JANUARY, 1913****No. 1.**

Editorials

The Medical College at Charleston.

No more important step for the uplift of the profession, in recent years, at least, has been suggested than the bill to be submitted to the Legislature making the Medical College at Charleston a branch of the University of South Carolina. This is in line with the action taken by almost every state in the union. For the moment we do not recall even a single Southern State which has not effected the above arrangement. It is of course to be expected that the alumni will make special efforts to influence favorably such legislation, and we can think of no good reason why every physician in the State who has the interests of Medical Education at heart should not do likewise. Gov. Blease in his message has taken a firm stand as follows:

"I recommend that an Act be passed making the Medical College at Char-

leston the Medical College of South Carolina, and making it a branch of the South Carolina University, and that you appropriate the sum of ten thousand dollars for the purpose of defraying the ordinary expenses of this institution. You have a law department; why not a medical department fostered by and under the direct control of the State? This could be done with very small expenditure of money; it is material to your University, and, in my opinion, would add much to the educational system of the State. I, therefore, earnestly urge that you pass a bill which will be submitted to you, during this session, along that line."

"This will be a step in the direction of making one great university of all the various State colleges, which I respectfully submit, should be the policy of our State in dealing with its higher institutions of learning."

The Legislature. Watch It!

The old family physician rarely concerned himself with legislation and he received little at its hands. He was held in the highest esteem by the individual members to be sure, but the thought that his faithful family doctor would ever become a serious factor in the affairs of state was indeed foreign to the legislator's remotest mental vision. The early struggles for medical laws by our State Association when its roster contained the names of only a hundred or so physicians makes a sad, humiliating page in our history. It is not so today when our numbers are nearing the one thousand mark, and the doctor in almost every community in the state is clearly recognized as a leader not only in the social and intellectual life of the community but he is a man of affairs as well. He is now in reality a representative citizen and his representatives in the legislature are decidedly inclined to respect his wishes. The State Association has been very successful in recent years in securing beneficent laws relating to the Public Health and to the uplift of the profession itself. It has been successful in defeating much vicious legislation. To keep up such a record we must watch closely every move from Columbia. We have a highly efficient Legislative Committee, Dr. C. F. Williams, chairman, Columbia; Dr. W. J. Burdell, Lugoff, and Dr. Robt. Wilson, Jr., Charleston, but they must have our loyal support. The discussion of the whole matter of medical legislation by the organized profession is admirably brought out in this issue of the JOURNAL. Read it! The Legislature is now in session.

The Marion Sims Monument.

Dr. Edwin Alderman, President of the University of Virginia, in his ad-

dress before the South Carolina Medical Association last year, said he considered that Marion Sims was the greatest man this State ever produced.

Whether or not this opinion will be generally accepted, it is certain that day by day throughout the whole civilized world, the name and works of Sims continue to shed lustre upon this his native State.

The State Association has undertaken to erect a monument to further perpetuate his memory. The General Assembly freely gave us five thousand dollars to this end when we shall have raised a similar sum. What are we doing about it? The JOURNAL would suggest that every County and District Society place upon its next program for immediate discussion, the question of the ways and means to secure this money.

The subject should be seriously agitated and a plan of action clearly outlined by every constituent Society. The Committee, of which Dr. Robert Wilson, Jr., of Charleston, is Chairman and Dr. S. C. Baker, of Sumter, Secretary, should have our earnest support and before the annual meeting at Rock Hill, the assurance that the matter has been given the attention it deserves.

Papers and Reports for the Journal

The supply of papers read before the State Association has been purposely nearly exhausted so that we might open its pages to a greater variety of papers and reports from the County and District Societies.

We shall be glad to receive these in the future and shall try to publish all of them.

Some of the best County Societies do not send in regular reports and thereby lose many of the benefits to be derived from a national and even world-

wide circulation of its activities.

Our exchange list is nearly one-fourth as large as our regular membership list and includes practically all of the best Journals in the country. Our contributors often have requests for reprints from various sections of the United States and sometimes from other countries, hence the urgent necessity and advisability of making more frequent use of the columns of our own JOURNAL. We urge, therefore, that every constituent society see to it that an official reporter be authorized to regularly send us these reports along with desirable papers for publication.

Tri-State Medical Association of the Carolinas and Virginia.

The 15th Annual Session of the Tri-State Medical Association of the Carolinas and Virginia, Dr. A. E. Baker, Charleston, S. C., President, will be held at Norfolk, Va., February 19-20, 1913.

An exceptionally fine program is being arranged and several distinguished invited guests are expected.

Authors intending reading papers will please send titles to the Secretary, Dr. Hughes, at Laurens, S. C.

Old Virginia's usual hospitality will be dispensed. Among one of the social events of the Session will be an oyster roast at Cape Henry.

Norfolk is amply supplied with hotels at moderate rates. The Monticello Hotel with an assembly hall in the building will be headquarters.

For further information address Dr. Southgate Leigh, Norfolk, Va., or Dr. Rolfe E. Hughes, Secretary, Laurens, S. C.

The Annual Meeting.

The approach of the Annual Meeting of the South Carolina Medical Association at Rock Hill, April 15th,

16th and 17th, should at this time engage the attention of every member of the Association. Those who intend to present papers should especially fix upon the title and subject matter of the same. Three months is not too distant for the serious consideration of a scientific subject and if the title is settled upon early the program committee will find it a much easier matter to arrange the details. The Chairman of the Scientific Committee, Dr. John F. Townsend, Charleston, has already accomplished some splendid results towards an interesting program. The official call for titles will be sent out shortly.

Payment of Dues.

We know of no lubricant so satisfactory in securing the smooth running of an organization as the real business like custom of prompt payment of dues. There was some confusion last year on the part of a few officers and members as to just where the money should be forwarded to and how much. This difficulty has been entirely overcome and the County Secretary has only to collect \$3.00 per member and forward the entire amount to Dr. E. A. Hines, Treasurer, Seneca, S. C.

Cerebro Spinal Meningitis.

For a year or two there has been reported to the State Board of Health sporadic cases of cerebro-spinal meningitis. The board has been fully aware of the fact that constant vigilance was the price of safety and has acted accordingly. You will recall that this Journal last summer urged its readers to keep in close touch with the possibilities of some day being called upon to combat this disease, in view of the epidemics in several Southern States. There is an excellent paper in this issue on the subject,

Original Articles

DUODENAL ULCER.*

By Baxter Haynes, M. D., Spartanburg, S. C.

Duodenal ulcer is rapidly placing itself at the top of the list of common and ordinary complaints, since we have learned to diagnose to a degree of certainty. When we see so many cases of appendicitis now days, we often wonder and are frequently asked by the laity "Did we use to have appendicitis like we do now?" Yes, I say, we did, possibly not so many cases, but we certainly had it. So it is with duodenal ulcer. We have had it for many years and we will, I believe, before a great while find that duodenal ulcer cases will be more common and frequent than we have ever seen appendicitis. There is no nation in the world free from it. There is no race of people exempt. There is no age which has its clearance card. Both sexes are victims of this trouble and no climate in the world can boast of its freedom. Some authorities say that females are most frequently found to have this ulcer, while some claim that males are more prone. In the cases which I have seen, I have found them in males about three to one.

I find almost the first attention paid to this subject was about the year 1824 and nothing much was done up to about the year 1860, when a few opened their eyes and recognized this trouble, but soon closed them again. In 1894 Dr. H. P. Dean performed the first successful operation for perforating duodenal ulcer. Investigators and researchers began to divide their time, giving a part to living pathology, thereby recording symptoms of duodenal ulcer, opening up very interest-

ing pages of a very interesting disease.

Dr. Moynihan operated on his first case January, 1900, and the first paper written on the duodenal ulcer was written by him in 1901. The first gastro-enterostomy for duodenal ulcer in the United States was performed by Dr. Moynihan in the Presbyterian Hospital in Philadelphia in 1903.

The symptoms of duodenal ulcer are rather definite. The most prominent one is an epigastralgia occurring at a definite time after eating (two to eight hours) relieved by water, food or an alkali. I have had one patient this year who is a dry goods merchant, age 38, whose pain came on between four and five in the morning. Had one patient, an undertaker by profession, whose pain came on between nine and ten every evening. Had another patient, a contractor by trade, age 58, whose pain came on from one to two hours before meals, but felt more uncomfortable from the time he arose in the morning until his breakfast was eaten. I could mention a great many more cases, giving almost a definite period of pain, but only mention these three, which show a definite period of discomfort during the twenty-four hours. This pain is spoken of as a "hunger pain" of a gnawing, burning character, and is nearly always relieved by the taking of food or an alkali. You very often see patients suffering with what they call indigestion, carrying around with them bottles of Phosphate of Soda or some like preparation to relieve that uncomfortable feeling and in these cases watch out for the definite period of pain after eating.

Pain on an empty stomach occurring at a fixed time (two to eight hours after meals) is characteristic of a duodenal ulcer. We find nausea and vomiting if it is an acute ulcer, frequently vomiting of blood from bright red to coffee grounds in color. We may find

*Read before the 4th District Medical Association, Spartanburg, S. C., Nov. 18, 1912.

microscopic or occult blood in the bowel movements. Gastric analysis nearly always gives a hyperchlorhydria. The total acidity in the case of the contractor named above was ninety and free HCl forty.

The position in which the patients place themselves sometimes unconsciously is often characteristic of duodenal ulcer. The merchant tells me he feels more comfortable during the period of epigastric pain leaning over the counter. One patient told me he got relief by sitting almost on his back in a chair. Another patient, in relating his experience, says that he frequently found himself leaning over the back of a chair. Have been told several times by patients that they felt more comfortable at night lying on their abdomen with a pad or something under them.

There are two conditions which might be mistaken for duodenal ulcer, namely, gastric ulcer and gall-bladder disease, especially gall-stones. In gastric ulcer, we find that the uncomfortable feeling comes on soon, if not immediately, after eating. The time of pain after food is taken is the main differentiating point between gastric and duodenal ulcer. We find that haematemesis is much more frequent in gastric ulcer and not so often seen in duodenal ulcer. We seldom see microscopic blood in the feces in gastric ulcer, where it is common in duodenal ulcer. In cholelithiasis, the pains come on at no certain or fixed period and do not bear such a distinct relation to the taking of food. Also the pain is much more excruciating and cramp-like, very often requiring a dose of morphine for relief, while in duodenal ulcer and also in gastric ulcer, an alkali or food brings about temporary relief. In gall-stone cases, we find much more belching and gaseous distention of the upper abdomen and severe nausea and vomit-

ing, the latter of which usually affords relief.

I will close this short clinical paper by saying that when we have a patient of any race, from any nation, of any climate, of any age and of either sex complaining of the following: epigastric pain, say coming on two to eight hours after eating of a burning, gnawing character, relieved by food, water or an alkali, of microscopic or occult blood in the feces, we shall feel safe to diagnose it duodenal ulcer. We should put the patient in bed, treating him for such for a period of three to five weeks and if no signs of marked improvement, we should advise him to be referred to a good surgeon for a gastro-enterostomy.

CHRONIC CONSTIPATION CONSIDERED FROM A SURGICAL STANDPOINT.*

By G. T. Tyler, M. D., Greenville, S. C.

The saying of Dr. Osler's, that woman is a constipated animal with a pain in her side, we have accepted with a smile, admitting the truth, but not acknowledging defeat in our efforts to secure some new cathartic or other means to effect a cure in these patients.

Even operations were resorted to, especially where pains in the right iliac region were felt. The surgeon has often taken the extreme position that the appendix alone caused the symptoms, and making a very small incision, he has removed that member with much speed. The patient being in bed of course had no symptoms, for the weight of the sagging intestine was taken away when the erect posture was no longer assumed, the bowels kept active with cathartics, and being well fed, the patient laid on weight. This increased the fat pads around the organs and strengthened their attachments. The general good effect was erroneously at-

*Read before the 4th District Medical Association, Spartanburg, S. C., Nov. 18, 1912.

tributed to the operation—until the patient was allowed to resume activity. When a recurrence of the symptoms made the case less promising and the none too good results of the treatment were apparent, the sufferer was called a neurasthenic, and constipated, of course, she was consigned to the realm of incurables.

The psychotherapists led by DuBois did much to relieve these patients, a renewal and an elaboration of the Wier Mitchell idea. Later, surgeons with the aid of Roentgenologists, began investigations—Clark of Philadelphia, Lane of London, Wilms of Heidleberg. And as a result of the combined efforts of all these workers and their followers, we have come to look upon this condition with hopefulness and to offer these patients a chance for relief.

To say that each case of constipation should be sent to the surgeon would be absurd; but that each patient having constitutional symptoms resulting from absorption, due to intestinal stasis should be examined with a view to finding a cause for this stasis, and a means for removing that cause is rational, and that is what I shall try to bring to your attention this afternoon.

The subject is too big to treat thoroughly in a paper of this length; hence I shall pay special attention to the anatomical causes of constipation and some of the measures to be followed for its relief. The causes I have thought best to classify are first, congenital and secondly, acquired. The former includes anomalies in visceral position and attachment and (associated or unassociated) variations in skeletal structure. The second embraces the conditions resulting from disease, inflammations, child-bearing and injuries.

The congenital factor has been brought to our attention by the orthopedists, notably Goldthwait and others

who have shown that the "ptotic habit" is present early in childhood and increases with growth. This "habit" is characteristic: the stooped shoulders, the long chest with the narrow angle, the protuberant lower abdomen, and the lessened thoracic and lumbar curves of the spine. Resulting from this, the distance between the promontory of the sacrum and the abdominal wall at the umbilicus, which is the narrowest portion of the abdominal cavity and separates it partly from the pelvic, is increased, the tilt of the pelvis is altered, and the support afforded by the abdominal wall and the pubes is transferred to the pelvic cavity, which receives more of the abdominal contents and permits sagging of the organs having a mesentery. One can readily demonstrate these facts on a child. Let the chest be held up, the chin in, the shoulders back—the position of "attention." Immediately the costal angle becomes wider, the liver lies well under the margin of the ribs, the other near-by viscera are high in the abdomen, while the anterior abdominal wall is flat. Most important, the thoracic and lumbar curves of the spine are pronounced, which in the latter furnishes a shelf for the partial support of kidneys, liver, spleen, ascending and descending colon, and hepatic and splenic flexures. Now, let the child assume the "stoop-shouldered" position with a relaxation of the muscles of the thorax. The spinal curves are lessened, the costal angle narrower and the liver and adjacent organs are lower, the lower abdomen becomes protuberant, and a larger part of the intestines now lie in the pelvis. With rotation of the intestines in fetal life there occur peritoneal attachments which vary to a great extent. For example, the cecum and ascending colon, descending from the liver, have normally no mesentery, because its embryonic mesentery has fused with

the parietal peritoneum. The hepatic flexure is high, under the liver; but in about 20 per cent of individuals this attachment and fusion does not take place; which means that this angle of the colon is lower, the ascending colon has a mesentery, and the transverse colon will sag because of the loose attachment of this angle. Added to this is the incomplete fusion of the layers of the omentum and the consequent lack of support of the transverse colon by the not-so-strong gastro-colic omentum. The lesser omentum, that fold of mesentery between liver and stomach, affording a support for the stomach, is also frequently much longer than usual, causing the lower position of the transverse colon as well as of the stomach. A membrane extending from the parietal peritoneum to the ascending colon, to the cecum, and even all the way across it—Jackson's pericolic membrane—has often been found. It frequently gives symptoms from constriction and distension proximal to it. An adhesion within the last few inches of the ileum binding this part of the gut to the pelvic brim and lessening its lumen—Lane's kink—is now familiar to all who have explored the abdomen. These last two conditions have been recently shown by Flint to occur in embryonic life. He found them in a fetus nine (9) inches long, while the cecum was partially descended. Ptotic as well as mobile cecum is easily explainable on this basis, as well as anomalies in attachment of duodenum and sigmoid. Algave found the cecum low in the pelvis in 17 per cent of one hundred autopsies.

In considering the anatomical conditions, it must be noted that the ascending and the descending colon do not pass vertically, but being in the iliac fossae just beneath the anterior abdominal wall they, at the hepatic and splenic flexures, lie in the posterior part

of the cavity, the course being an oblique one. Also, the transverse colon at its extremities, is in the posterior part of the abdominal cavity, the splenic higher than the hepatic flexure; but in the central portion, it lies just behind the ventral wall. Its mesentery is not fixed, except at the extremities and it sags much more than any other part of the alimentary tract. It has been found sagging when there is only a small degree of gastrophtosis. The descending colon becomes fixed in its position very early in fetal life. Its mesentery is also fused with the parietal peritoneum; and there are fewer symptoms referable to it than to any other part of the tract.

The mesentery of the sigmoid has an Λ —shaped attachment, the arms meeting in the mid line at the 3rd or 4th lumbar vertebra. The origin of the upper is at the sacro-iliae synchondrosis; that of the lower at the 3rd sacral-vertebra. Variations in attachment and length of the sigmoid alter the position and shape of this loop. It may be in the pelvis or altogether in the abdomen; the arms may be parallel instead of Λ shaped, and the length of the loop may vary from 16 to 25 inches or more. Adhesions between this loop and the parietal peritoneum have been found in a very large number of autopsies—80 per cent. of seven hundred, according to Robinson. It seems quite likely that some of these may occur in embryonic life. These variations are in the attachments of the large intestine; those in the small occur—except Lane's kink—frequently, being at the juncture of duodenum and jejunum and near stomach and duodenum.

As to the second class of cases, the acquired, it is necessary only to mention them, for they are familiar to you all. Patients sick from long-continued wasting diseases or in unhygienic surroundings causing a loss of body fat,

weakening of the skeletal muscles, often have a sagging of the viscera which produces constipation, that adding to the weakened condition. These can be relieved by gaining weight and strength and increasing the muscular tone. The inflammations with their resulting adhesions; ulcers of stomach and duodenum, disease of the bile passages, of the appendix, ulcerations of the colon and pelvic inflammatory disease, tubercular peritonitis, tumors of various origin, all are causes of constipation which are well known. Injuries and post-operative adhesions are also of this class.

That child-bearing with its attendant pelvic relaxations is a factor in visceral ptosis is common knowledge; but strange as it may seem, there are patients with extensive lacerations who have no or very few symptoms. One explanation is that the muscular tone of the body is good; also and more important, that there are no congenital variations; the curves of the spine are normal, the costal angle wide, the liver and the stomach are high. But let these patients become weakened by illness with loss of weight. Immediately they will have symptoms and become constipated, which condition may not be relieved with regaining of weight and strength, for then the attachments may have been stretched, their elasticity lost, and the organs remain in their ptosed position.

The diagnostic measures now used are chiefly those of the Roentgenologist. Bismuth mixed with porridge is given and the time noted for its passage through the stomach and intestine. The points where delay occurs can be well made out and attention directed to these areas. Constrictions are revealed, the portion where sagging takes place determined, and treatment undertaken with special reference to these parts of the gut. Bismuth enemas

given in the knee-chest position also reveal anomalies in the colon, especially when symptoms are referable there. About twenty-four hours is required for passage through the tract. Six to eight hours is necessary to reach the cecum; eighteen to twenty hours to reach the sigmoid. Wherever delay is noted, there is usually a corresponding anatomical deformity—ptosis of the stomach with high pyloric angle, ptosis of cecum and ascending colon, sagging of transverse colon, etc. Bismuth meals have been delayed in their passage from the cecum twelve to thirty-six hours and have remained in the transverse colon more than seventy-two hours. The photographic plates are taken in the prone, or better, the standing position.

Evidently, these are abnormal conditions and the symptoms arising from them are many. Constipation is persistent, pain, distension, sometimes nausea and vomiting, and occasionally palpable tympanitic tumors, pressure upon which causes gurgling, are present. There is rarely fever or leucocytosis. Continued over a long period, the effect on the general well-being of the patient is evident—pallor, languor, headaches, indifferent nutrition, obscure pains, and other symptoms so frequently associated with chronic constipation; which Lane has well described.

The means offered for treatment are many. Operative measures should not be urged until others have failed. In children special attention should be directed to skeletal deformities; tonsils and adenoids removed if causing symptoms, diet and bowels regulated. The patient should acquire good habits and every effort made to become and remain robust. In youth and after-life, the same care is to be exercised. Well directed gymnastics exercises have been urged and have given good results.

Often binders properly adjusted may relieve, but they should not be depended upon for too great a time; for while intended to assist the musculature, they may later by taking its work, cause it to weaken. Mere mention of operation for acute inflammations in the abdomen, as well as for perineal relaxation is sufficient. Other operations with special reference to the bowels are: dividing adhesions where they exist—Lane's kink, Jackson's membrane, bands in the region of the flexures. Anchoring the cecum when it is mobile or ptotic, as Wilms has done by making a pocket of the peritoneal peritoneum and stitching the cecum there, has given relief in 75 per cent. of his cases; but it should not be used during the child-bearing period, for with pregnancy it tends to relapse. Delbet, when the cecum is large, has removed the greater part and stitched the remainder to the peritoneal peritoneum. Beyea has shortened the gastro-hepatic omentum. Coffey has added to this, suturing of the great omentum with the gastrocolic omentum to the abdominal wall swinging up the stomach and the transverse colon. The liver has also been sutured to the abdominal wall. Rovsing has sutured the stomach to the abdominal wall with a good percentage of cures. Lane has short-circuited the intestine, anastomosing the ileum with the sigmoid or even removing the entire colon down to the sigmoid. Bloodgood removes the colon up to the entrance of the superior mesenteric artery, anastomosing ileum to the distal portion of the transverse colon. Clark has short-circuited redundant sigmoids. Reis has sutured the sigmoid to the anterior abdominal wall. All these methods have had good results when carefully selected for individual cases. Where proper study of the case occurs, the better will be the results of operative procedure. As proof of the suc-

cess of the measures, controls have been made both before and after operations. The time for passage of the contents through the intestine is much shortened; and better, many patients have been permanently benefitted.

Summarizing: There is often an anatomical basis for chronic constipation of congenital or acquired origin. By proper diagnostic methods, the location of the stasis can be determined and methods directed toward its relief undertaken. The results in properly studied cases are so encouraging as to give promise of a wider field of usefulness for operative measures.

CEREBRO-SPINAL MENINGITIS WITH REPORT OF CASES.*

By J. R. Young, A. B., M.D., Anderson, S. C.

Cerebro-Spinal Fever, Cerebro-Spinal Meningitis, Spotted Fever and perhaps "Brain Fever" of the older school of physicians are synonymous terms. This disease has been recognized since 1805 when an epidemic occurred in Geneva, Switzerland. The following year, 1806, an epidemic occurred at Medfield, Mass. Since that time the history of the disease shows periods of epidemic or pandemic prevalence alternating with periods of comparative rarity resembling very much, in this respect, the occurrence of influenza. For the last six years the disease has been endemic in the eastern and southern portions of the United States, and during this time several distinct epidemics have occurred. Notable among these was the epidemic in Texas last year; also a milder one in Georgia. Just why the disease recurs in cycles of epidemics I cannot say. We do know that other diseases exhibit alternating periods of epidemics prevalence and relative rarity. For in-

*Read before the 4th District Medical Association, Spartanburg, S. C., Nov. 18, 1912.

stance, a study of the incidence of measles in Richmond, Va., showed such regularity in the cycles of epidemics that the health officer was able to predict an epidemic before it actually occurred. Frost in Public Health Report No. 69.

Now I have not devised any algebraic formulas by which I mean to show the probability of our having an epidemic of meningitis in this Piedmont section, but realizing that such might be our misfortune, and having recently had two sporadic cases of meningitis in my practice, I determined to present this subject for your consideration at this time.

Definition.—Cerebro-Spinal Fever is an acute infectious disease, due to the presence, growth and death of bacteria in the lepto-meninges, and characterized by a toxemia which manifests itself in more or less typical nervous symptoms. This term does not include those chronic cases of meningitis of tubercular or syphilitic origin, nor do we intend to include in this discussion those cases that occasionally complicate typhoid and influenza.

Etiology and Epidemiology.—In 1887, Weichselbaum isolated an organism from the meningeal exudate of several cases of meningitis and suggested it as the specific cause of the disease. This organism—the Diplococcus-Intracellularis Memingitidis or Meningococcus is now universally accepted as the specific cause. It is a diplococcus resembling very much the gonococcus; it stains with the usual analine dyes; is gram negative and in the cerebro spinal fluid is usually found within the cells of the exudate. This same organism is the specific cause in both sporadic cases and epidemic cases, and, so far as can be determined, is just as virulent in the one as in the other. If this be true, and I'm giving you the word of Barker for it, when a sporadic case

occurs why is it not always followed by an epidemic? The old-fashioned Presbyterian answer, "The Lord only knows," is the safest reply to this question, but in the peculiarity of the germ we may find some light. In a given sporadic case the danger of infection is from the nasal and oral excreta. (The organism has been repeatedly demonstrated during the early days of the attack in the naso-pharyngeal secretions.) When the germs are expelled in the sick room by sneezing or coughing they have a good chance of being killed by heat and sunlight, but if they are inhaled by others and find lodgment in the posterior nares *it is only in an occasional individual that they will produce the disease.* In other words, to have the disease the exciting cause must meet up with a susceptible individual. In past epidemics these "susceptibles" have not numbered more than two per thousand population. While such an exposed person may not develop meningitis, he may become a carrier. Investigation has shown that healthy carriers are ten times more numerous during an epidemic than clinical cases, and on account of their unrestricted liberty they may become more than ten times more potent in the spread of the infection. So far as known the only source of infection is man. Either persons having meningitis or healthy carriers. There is no record of the germ having been isolated from any other source. No local causes, as infected water or milk, have been shown in any epidemic. In dust and fomites the germ does not long survive, so in every case the disease is due to some infected person.

Symptoms and Diagnosis.—Unfortunately, an early clinical diagnosis may be very difficult to make. In the absence of an epidemic when we are off our guard, so to speak, unless we be extremely careful we will fail to diag-

nose the disease until it is too late.

In certain fulminating cases the toxemia is so overwhelming that the classical symptoms do not have time to appear, death coming in a few hours. In such cases diagnosis is only of value to adorn the death certificate. Perhaps the average case will develop in something like the following manner:

1. Exposure occurs in susceptible child; germs are harbored in nasopharynx. In this suitable incubator they increase by the millions, and after a short, but indefinite, time they are taken up in the blood stream and some gain entrance within the membranes of the brain and cord.

2. All the protecting and fighting agencies of the child are put to work. The phagocytes stimulated by the opsonins devour the invading germs by the millions; the lysins and other bacteriolytic elements of the blood cause the death of more millions, and in their death the specific toxins or endo-toxins of the meningococci are set free. This toxemia manifests itself by:

3. Violent headache, backache, vomiting, high fever, rapid pulse, sensitiveness to noise and light, herpes on lips, recurring chilly sensations. In about one-fourth of cases a petechial eruption will appear. This has no characteristic distribution, and may be limited or diffuse. This picture will continue for a few days with varying intensity when the muscles of the neck will become painful and then tender to the touch and then stiff. Kernig's sign may develop. Certain cerebral nerves may show involvement as indicated by ptosis of eyelids or strabismus.

In a few days convulsions will come on. These are not peculiar in character, but during the interval between convulsions there remains a spastic condition of the muscles of both extremities. Incontinence of urine and feces often develop and soon the patient

passes into a coma in which it may die from the progressive paralyzing toxemia or from which after a few days or weeks it may slowly recover. Some apparently hopeless cases recover as one reported by Kerley—"Boy of six years; confined to bed fourteen weeks; unconscious four weeks; blind four weeks; deaf five weeks; unable to swallow and fed by rectal enema for two weeks; and yet made a recovery and was normal in every way."

No single symptom in the above description is pathognomonic. If we are to make a diagnosis during the first three days, the "days of grace," when serum therapy offers so much hope, we will often have to resort to lumbar puncture, as an aid in diagnosis. The authorities on this subject have formulated this rule: "In any case of severe illness in which we have reason to suspect a meningitis a lumbar puncture is justifiable." If the withdrawn spinal fluid is turbid the diagnosis is made, and if it is clear a microscopic examination may disclose the meningococcus.

The diagnosis made, what is the treatment? It is symptomatic and specific. The general management and symptomatic treatment I will not dwell upon. The specific treatment consists in injecting within the spinal canal every twenty-four hours for four days or as long as necessary, a dose of Flexner's Anti-meningitis serum. This serum has been perfected by Flexner and Jobling, of the Rockefeller Institute. It is obtained from horses immunized against the meningococcus by long continued injections of live or killed culture of the meningococcus. It was not used on human beings until long continued experiments were carried out on monkeys and its efficacy and safety fully established.

Technique of Administration—Lumbar Puncture.—The site usually selected for lumbar puncture is the space be-

tween the spinous processes of the third and fourth lumbar vertebra. This point is just above a line drawn across the spine connecting the highest points of the iliac crests. Before attempting the puncture the child should be brought well to the edge of the bed, placed on its side and its back bowed by having a nurse press its knees and chest together. The skin is then carefully cleansed, then painted with iodine after which sterile towels are draped around the field. The skin is sprayed with Ethyl chlorid and the Quincke needle, previously boiled, is thrust in puncturing the skin about one-quarter inch lateral to the inter-spinous line, and being directed slightly upward and inward. The sudden giving away warns the operator that the dura has been punctured. The stylet is withdrawn and the spinal fluid flows out. It is collected in a sterile test tube or bottle which should register the quantity withdrawn. As the fluid flows out it is a wise precaution to have an assistant watch the pulse and blood pressure. Any sudden drop in blood pressure is a signal to stop else the patient may quickly show signs of shock. When about 30cc fluid has been withdrawn the stylet should again be introduced. If the spinal fluid is the least cloudy, or if it is clear and *clinical symptoms strongly suggest meningitis*, the serum should be injected. The syringe is connected to the needle, after withdrawing its stylet, and slowly the serum is forced into the canal. It is advised that some ten minutes be consumed in injecting the usual size dose (30cc). (The serum as marketed by H. K. Mulford & Co. is put up in packages similar to those of antitoxin. In each package a Quincke needle is furnished.) If the spinal fluid is clear and serum is used anyway, it should be examined microscopically before dose is repeated. If the meningococci are found the dose

repeated every twenty-four hours till symptoms abate, or till germs disappear from exudate. Before attempting a puncture it is necessary to have two capable assistants—one to watch effect of procedure on patient and the other to maintain the flexed condition of patient's back. If this cannot be done a general anesthetic should be given, because the canal cannot be punctured without danger unless patient be still and its back well bowed. It is advised that dose be repeated every twenty-four hours, and earlier if symptoms demand it, for four doses. Then an interval of three or four days. If symptoms then have not abated another series of four doses should be used.

Results of Serum Therapy.—In all the recent epidemics in this country and Europe the mortality in serum-treated cases has been from 15 to 30 per cent. and being in every instance lower when serum is given early in disease. During same epidemics the cases not given serum treatment have shown mortality rate of 50 to 85 per cent. And not only is the mortality reduced, but the distressing sequela—blindness, deafness, hydrocephalus, idiocy, etc., are much less frequent in serum treated cases.

How Does Serum Work?—The serum has a three-fold action.

1. Principally it is *bactericidal*. This bacteriolysis results in setting free of the specific toxins or endo-toxins. The resulting toxemia is counteracted, in part at least, by the (2) *Antitoxic* property of the serum. It resembles in this respect the antitoxin of diphtheria or tetanus. (3) The serum also has an opsonizing influence stimulating in some manner the phagocytes in their ingestion of the germs.

Danger of Serum.—Occasionally annoying or even alarming symptoms may come on while serum is being

given. These may vary from slight symptoms of shock—thready pulse, pallor, sighing, rest, etc.—to collapse. Such symptoms may be due to a too sudden change of cerebral pressure; to the local action of serum in liberating an overwhelming quantity of toxins; or perhaps may be a manifestation of serum sickness, caused by the administration of a foreign proteid (horse serum). However, such complications are rare and do not compare at all in gravity to the danger of meningitis.

Case Reports.—Case 1.—On July 13, 1912, I was called to see a child, white, female, age 8 years. Had measles in early spring, previous history negative aside from this. Mother stated that child was well until day before when she became chilly and complained of slight headache and backache. Examination revealed temp. 103 degrees, pulse full and rapid; throat slightly red, ears, chest and abdomen were negative. Bowels had been moved off by castor oil. Small doses of calomel and two grain doses of sodium salicylate every four hours were prescribed. Positive diagnosis was not made. On 14th, 15th, 16th and 17th clinical picture remained about same. Urine gave negation diazo reaction and showed trace of albumin. During this time bowels were inclined to be loose, and stools were offensive. Temp. ranged from 101 degrees to 104 degrees. The infectious symptoms—headaches, etc.—were somewhat improved, but a nervous restlessness was present, being pronounced at intervals. Up to this time a tentative diagnosis of typhoid was made. On night of 18th, fifth day of disease, child went into a profound collapse; temperature subnormal; pulse very rapid and thready; extremities cold and clammy. Intestinal hemorrhage was suspected. Ice cap applied to abdomen and 1-32 gr. morphine was given by hypo. By noon of the 19th reac-

tion had occurred, extremities warm, temperature 101 degrees and pulse fuller. Bowels had not acted so suspicion of hemorrhage had not been confirmed. Retentive of urine necessitated use of catheter. During evening child became very restless and very susceptible to light and noise. Herpes appeared on lips. Muscles of neck became tender, and mild spastic flexion of both lower and upper extremities appeared. On the night of the 19th severe convulsions came on and continued at frequent intervals for the next four days. Kernig's sign was marked and opisthotonus was definite and continuous. On the 20th spinal puncture was done and about 30cc clear fluid withdrawn and the same quantity Flexner serum introduced. This procedure was repeated on two subsequent days at which time withdrawn fluid was cloudy. Slight improvement followed first dose of serum but it was short lived. A gradually deepening coma came on in which child died on the 23d, the 11th day of sickness. The meningococci were demonstrated in spinal fluid. Blood secured at time of first puncture gave negative Widal reaction.

A short time after this a second child in same family, girl aged four, became sick. She showed mild symptoms of severe infection, but these cleared up in a few days, but child was left with a pronounced internal squint of right eye. I was satisfied the child had an abortive attack of meningitis and that the squint was direct result.

On 14th September I was again called to see the same child. Found again a clinical picture of same infection. Conjunctiva slightly congested, throat somewhat red; face flushed; lips dry; and tongue coated, breath fetid. Had no severe definite localized pain but ached all over. Temperature was 101 degrees and pulse 120. Throat, ears, chest and abdomen were all negative.

Of course, I remembered my experience in same family two months previously, but on account of negative clinical findings and the fact that next door neighbors then had severe typhoid I made a tentative diagnosis of typhoid. And for next four days course of disease bore out my assumption. Temperature ranged from 101 degrees to 103 degrees, pulse from 120 to 130. During the evenings nervousness was rather pronounced, but not more so than might be expected in a child of four having high fever. On the 19th, sixth day of illness, restlessness became more marked and some stiffness of neck muscles appeared. Food was refused but water was taken without difficulty. Pupils were normal in size and reacted normally. Squint of right eye did not show up so plainly. Kernig's sign was negative. Moderate diarrhoea with very offensive stools developed. After consultation a diagnostic lumbar puncture was decided upon. This was attempted but with unsatisfactory results. The next day I again did spinal puncture withdrawing about 30cc slightly cloudy fluid and injecting a full dose of Flexner serum. At this time typical meningitis picture had come on—retracted head, flexed extremities, dilated pupils, cephalic cry and mild delirium. A rapidly developing coma came on in which child died on the 22d, tenth day of illness. Meningococci and a few polymuclear leucocytes were demonstrated in cloudy spinal fluid. Blood taken at time of puncture gave a negative Widal.

So far as I know these are the first cases of cerebro-spinal meningitis that have occurred in this state in which a bacteriological diagnosis has been made.

My experiences in these cases have led me to wonder if we do not have more cases of meningitis than we diagnose. Is it not possible that some of

our cases of summer complaint that become so desperately sick with "brain symptoms" after five or six days are infected with meningitis? Is it not possible that some of the infants who are thrown into violent and fatal convulsions from biting jaw teeth, are in reality infected with meningitis? Such cases are most common in the early spring, just the season in which most of the epidemics of meningitis have started.

Since we have had sporadic cases of meningitis, and might have an epidemic, what line of attack or defense should we doctors consider for such an emergency?

1. Prompt reporting of all suspicious cases to State and local health officers.

2. Isolation of patient and disinfection of nasopharyngeal discharges as for diphtheria. The utmost cleanliness of all associates of the patient and the use of cleansing gargles and nasal douches.

3. Placarding house where case exists; exclusion of visitors; exclusion of children of family from school; and confining to house all members of family not obliged to go out.

4. The procuring of a bountiful supply of Flexner serum. The services of one versed in bacteriological technique to examine cerebro-spinal fluid, and also the services of a local or imported expert clinician to aid in diagnosis and administration of serum should be secured. While lumbar puncture is not a difficult operation it should not be attempted by one unless he gives it special study and is well versed in aseptic technique.

If these measures, and others that may be deemed wise, are adopted and our plans of attack and defenses are outlined as completely as possible, who will doubt that we may be able to save several, perhaps scores, of young lives?

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PAIN OF GASTRIC AND DUODENAL ULCER.*

By F. M. Durham, M. D., Columbia,
S. C.

Gastric Ulcer.—The pain of the gastric ulcer is caused by the exposure of the sensory nerves endings in eroded areas of the gastric mucosa.

Pain in the epigastrium at a regular interval after eating is the most constant and characteristic symptom of gastric ulcer. Yet in rare cases it may be entirely wanting. The pain of peptic ulcer is not as constant or continuous as that of cancer. The discomfort usually begins within thirty minutes after the taking of solid, highly seasoned or indigestible articles of food, and increases in severity as digestion advances and continues as long as food and free hydro-chloric acid remain in the stomach. Discomfort at times does not appear until digestion is at its height, especially is this true when the ulcer is situated at the pylorus and is in a process of healing.

Large quantities of indigestible food dilate the stomach, retard the emptying of the same, stimulate a copious flow of hydro-chloric acid and do traumatic and chemic injury to the ulcer. From this it can be seen that pain is due to traumatic and chemic injury and if the foods are excessively hot or

cold thermic causes must be considered. Large quantities of food produce discomfort earlier and of longer duration than do small amounts because excessive quantities dilate the stomach, put tension on the ulcer, stay in the organ longer, and thereby do much traumatic and chemic irritation.

Foods containing lemon juice, vinegar, pepper or mustard not only irritate the peptic ulcer as they would if applied in the form of a poultice to an ulcer on any other portion of the body but they are very strong gastric stimulants and cause a copious flow of hydrochloric acid and hydrochloric acid is very irritating and painful to a denuded surface. Hyperchlorhydria is present in 75 per cent of the cases of gastric ulcer and is the greatest factor in the production of pain.

Coarse foods do traumatic injury. Liquid or soft foods which have high combining qualities with hydrochloric acid dilute the gastric juice and often relieve discomfort. The presence of food in the stomach sets in motion the peristaltic wave, and motion may cause pain in the peptic ulcer just as it would in an ulcer near a joint. Physiological and anatomical rest are as important in the alleviation of pain in gastric ulcer as they are in relieving pain in any other inflamed area. The suffering caused by foods is often so severe that it is necessary to give the stomach absolute rest.

In a smaller number of cases the sensation of pain has a sensation of emptiness, or a gnawing that has an element of hunger in it. In rare cases the discomfort is severe during complete emptiness of the stomach. This is when gastric ulcer is associated with gastrosuecorrhaea. In gastrosuecorrhaea during complete rest of the digestive function the ulcer is bathed in free hydrochloric acid, as gastric secretion is continuous so is the pain continuous.

*Read before the Pee Dee Medical Society at Florence, S. C., Nov. 27, 1912

The pain of gastric ulcer is usually circumscribed—tender on pressure and situated just below the ensiform cartilage in the median line or slightly to the right or left. The area is one or two inches in diameter. In a large percent of the cases the pain radiates in an anteroposterior direction and localized tender spots are found on the back. It may be located anywhere but is most often on a level with and to the left of the 9th to 10th thoracic vertebra.

The pain of the gastric ulcer may be slight or severe. It may be burning, boring, cramp-like, or paroxysmal. It often begins with slight uneasiness, gradually increasing and going through all its variations and then slowly decreasing. Frequently the pain is lancinating and extends through the back or it may simulate an intercostal neuralgia, or an angina-pectoris, or take the form of a severe heartburn. The heartburn is quite common if hypersecretion is present.

When gastric ulcer is complicated with pylorospasm the pain is that of very severe cramps, similar to the passage of a gall stone, but is always attended with a full hyperacid stomach and bears a definite relation as to time after the ingestion of indigestible food. Retching and vomiting increase the pain of peptic ulcer, but if the vomiting is sufficient to completely empty the stomach it gives relief. Pain is affected by position. This is due to the fact that the contents of the stomach obey the law of gravity. The patient will always take the position which causes the acid chyme to gravitate away from the erosion. The most comfortable position is usually on the back or right side, as peptic ulcer is most often situated on the posterior wall, lesser curvature and pyloric end of the stomach. Lavage with warm alkaline water gives immediate relief if it can be done without retching and gagging.

Duodenal Ulcer.—Pain in duodenal ulcer as a rule does not appear for two to four hours after eating an ordinary full meal, because the foods that first enter the duodenum are the portions of the meal that have the greatest neutralizing or combining quality with hydrochloric acid and contain very little, if any, of the free acid. In other words it is the easiest part of the meal digested and the digestion is so complete that the bile and intestinal juices render it alkaline before it has time to do much irritation to the eroded area.

As a general thing the pain of duodenal ulcer is severest when gastric digestion has reached its fastigium and the stomach is beginning to empty itself preparatory for another meal. This accounts for the so-called hunger pain—the classical pain of duodenal ulcer. The taking of food into the stomach as a rule gives relief from pain because it either dilutes the acid chyme and the duodenum then receives a less acid content or it acts as a new stimulus to gastric secretion and causes a contraction of the pylorus and prevents the exit of chyme out of the stomach into the duodenum. A drink of whiskey will sometimes stimulate pyloric contraction and give relief from pain in half an hour or so. This is one reason why whiskey has been so popular as a digestive tonic with the laity.

The pain is usually a little to the right of the median line and extends downward but not into the loins. It has no circumscribed area and does not radiate to the back and form tender spots.

Pyloric ulcer is not near so tender on pressure and neither is the pain so prominent a symptom as in gastric ulcer. Pain is very often absent. It is boring, gnawing, burning, crampy or paroxysmal and often there is a certain amount of hunger associated with each of these variations. When the pain is

paroxysmal it is due to pylorospasm and simulates the passage of gall stones, but if the paroxysms are studied carefully it will be found they bear a definite relation as to time after eating indigestible articles of food, and the stomach will contain ingesta and free hydrochloric acid in nearly all such cases.

Pain of the duodenal ulcer is affected by position but not so much as in gastric ulcer. It is increased by retching and vomiting, but when the stomach completely empties itself, relief is almost sure to follow in a short time. A warm alkaline lavage does not as a rule give immediate relief as it is almost impossible to irrigate the duodenum. However the only acid chyme remaining after lavage is that portion left in the duodenum. This is soon rendered alkaline by the bile and intestinal juices and the pain is relieved.

Report of pain in three cases of gastric and duodenal ulcer in which the diagnosis was confirmed by operation:

Case No. 1.—Young lady, age 18. She suffered severe pain immediately after eating. There was localized tenderness in the median line below the ensiform cartilage. The pain extended in an antero-posterior direction and there was a tender spot to the left of the spinal column. She was more comfortable while lying on her back in bed. Lavage with warm alkaline water gave immediate relief and she took the tube without a struggle. I did not wash the stomach but three or four times as there was some blood in the return water. Pain was severe after taking food, and there was some hematemesis so I resorted to rectal feeding. Alimentation by this route soon failed and I recommended an operation. The abdomen was opened and a large, angry gastric ulcer found.

Case No. 2.—Male, 40 years of age, was referred to me for pain in the ab-

domen. He had been seen by three physicians, two of whom diagnosed his trouble as gall stone colic, one physician dissenting and diagnosing it as gastric or duodenal ulcer. The patient stated to me that he had had paroxysms of pains at intervals of more than a year. This with other digestive disturbances had incapacitated him for work. Upon examination I found tenderness upon deep pressure to right of median line near the gall bladder region. The pain did not radiate to back. After close observation in the hospital, I found the discomfort as a rule began three or four hours after taking an ordinary meal and he told me that he was often hungry while suffering severe pain and that eating frequently gave him temporary relief. Lavage with warm alkaline water was effective in three-fourths to one hour. Gastric analysis showed the presence of hyperchlorhydria. The stools were negative except for the presence of occult blood, but so many articles of food and gastro-intestinal conditions give the reaction for occult blood that its absence is worth more as a diagnostic point than its presence. I failed to benefit this patient and diagnosed his trouble as duodenal ulcer. I referred him to a surgeon. The abdomen was opened and a large duodenal ulcer with a cicatricial mass which almost occluded the gut was found.

Case No. 3.—Widow, age about 28. She stated that she had been suffering continuously with pain in the stomach which was extremely severe after eating. She was afraid to eat because of the discomfort and had lost considerable weight. On examination I found she was anaemic and neurotic. The pain radiated in an antero-posterior direction and there was tenderness in the back. The pain was continuous on the empty as well as the full stomach, but was severest a short time after eat-

ing. She was more comfortable while lying quietly on her back in bed. Lavage was variable as to time in giving relief. As the pain was continuous and stubborn I thought I was dealing with a carcinomatous condition but gastric findings and the age of the patient eliminated cancer. I next looked for ulcer associated with gastro-necorrhœa but could find no juice in the empty stomach. Therefore I had to look for another cause for the continuous pain. I now thought I was dealing with a pyloric ulcer that extended from the stomach through the pylorus into the duodenum and accounted for the continuous pain by the frequent contraction of the pylorus and that the proximal or distal end of the ulcer were being bathed in the acid chyme of the stomach or duodenum on the empty as well as the full stomach. Medical treatment failed. Upon opening the abdomen a gastric ulcer near the pylorus and an ulcer in the second part of the duodenum were found.

I do not believe that more than 20 per cent of cases of gastric ulcer are diagnosed unless hematemesis is present, and hematemesis is by no means a constant symptom.

I have been in Columbia four years and have had only one patient referred to me upon whom previous diagnosis of duodenal ulcer had been made.

Gastric and duodenal ulcer are much more frequent than we think and scar tissues makes more chronic dyspeptics and neurasthenics than statistics show.

Quoting Stowall's Statistics in Kemp's Diseases of the Stomach and Intestines: "I find death from hemorrhage 3 to 4 per cent, exhaustion 5 per cent, fatal perforation 6.5 per cent to 13 per cent, pulmonary tuberculosis was terminal event in 20 per cent (Debove and Remond) out of 100 cases."

The duodenum, pylorus, pyloric end

of the stomach, gall bladder, bile ducts, part of the liver, right kidney and a portion of its ureter are found in the upper right section of the abdomen.

Pain is the most constant symptom of disease in this area.

The art of interpreting pain and its relation to the symptom complex is the greatest asset that the physician or surgeon can have in diagnosing or differentiating diseases in this region.

THE NECESSITY FOR COUNTY MEDICAL ASSOCIATIONS IN RELATION TO MEDICAL LEGISLATION.*

By A. Moultrie Brailsford, M. D., *Mullins, S. C.*

This is an age of organization. The successful promotion and maintenance of any enterprise demand organization. This is evidenced in the histories of the great industries of this country that owe their marvelous growth and power to interests, combined in such a manner as to enable them to co-operate together.

It is true that in some instances a few of these combinations assume such proportions that they absorb all kindred interests and dominate the products of their respective industries to the serious detriment of the public.

These, of course, are exceptional cases, but we must remember that in the commercial world affairs are regulated with more or less selfish motives—the enterprise *must* succeed even at the expense of the public.

Now, in the medical world, organization is also a vital necessity to success. But success here has a broader and deeper significance. While the members of the medical profession plead guilty to that universal weakness—selfishness—yet, at the same time that ambitions are nursed and personal comforts provided, they look beyond

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the narrow horizon out upon the broad sea of humanity and realize more than any other body of men the baseness of the question, "Am I my brother's keeper?"

From the earliest student-life we are taught to become servants of the people. There is no trouble about making people accept this attitude toward the individual physician, and I do not believe they would act otherwise towards medical organizations, were they properly impressed with the fact that they are working for the public weal.

I have had some experience in public health work, and have found the people ready to co-operate in any effort for the general welfare.

The confidence of the people can only be gained through united efforts upon the part of the physicians. "In unity there is strength"—a chain is no stronger than its weakest link. The County Associations are integral parts of the chain of medical organizations, and their weakness is a hindrance and a handicap to medical progress.

The best way to carry out measures relating to medical affairs, is to approach the representatives in congress and state legislatures in their respective counties through committees from the county associations. Explain to them what is wanted, and that the associations are going to instruct the public through the press, and otherwise, in regard to the legislation desired. A well organized body of men, though few in number, can exert a wonderful amount of influence. Particularly is this true of medical organizations whose members come in such close and intimate contact with the people. Let our solons distinctly understand that their constituents expect them to support certain measures that concern the public welfare, and it will exert a greater influence than all the lobbying in Christendom.

To obtain results in medical legislation we must work in unity, peace and concord. Educate the public mind to a proper understanding of the situation and thus gain their support and co-operation. This work can only be done through live County Associations.

Much has already been done through committees on medical legislation from our large associations, but I believe greater things will yet be accomplished—even to the establishment of a department of health at Washington—through well organized and active county associations.

In this connection I would suggest that the secretary of each county association in this state be instructed to write our representatives in congress in regard to the Owen bill. Tell them we expect them to support it, and ask them their attitude toward the measure. Inform them that the public will be instructed through the press and platform as to the true meaning of the bill and that their answers will also be published.

There is nothing complicated or difficult to comprehend in this bill, its object is simply to co-ordinate three existing bureaus—to transfer the Public Health and Marine Hospital Service from the treasury department; the Division of Vital Statistics from the bureau of census, and the Bureau of Chemistry from the department of agriculture to a Department of Health. There could not possibly be objections from any source to the transfer of the first two bureaus. The only opposition is to the transfer of the bureau of chemistry. Under the department of agriculture this bureau is hampered in its struggle for pure food and pure drugs, hence the patent medicine and adulterated food manufacturers and their advertising agents and various misled and misinformed healers, sectarians, and fadists are working with

might and main to keep it there.

A National Department of Health would not be concerned with the individual treatment of disease, but, in addition to its fight for pure food and drugs, it would regulate such matters as prophylaxis of disease, quarantine, pollution of streams and public sanitation. The medical profession endorses it because it stands for health, science, progress, honesty and altruism.

There is such a department now in Germany, and in other countries much thought has been given the subject. Gladstone held that the care of health, both that of the individual and that of the community, falls well within the sphere of the state the legitimate function of government.

"Authorities on the value of man declare him of infinite worth. Economists have estimated the annual cost of avoidable diseases to a country as amounting to millions on millions of dollars. But governments expend immense amounts on preventing disease among animals used by man, and practically nothing to avoid the needless diseases of human beings.

"It betrays an inverted sense of relative value. If in ten years the government has spent \$40,000,000 to protect the health of crops and animals, it may logically and consistently be expected to spend more for the health of toiling men, loving women, and dear children that are worth infinitely more than grains, fruits, donkeys, and cows."

The people are lending an attentive ear to the medical fraternity and will listen to us if we pursue a dignified and statesmanlike policy in teaching the gospel of health and of national conservation of human life.

The "National League for Medical Freedom"—which, indeed, is merely a league for license to permit quacks and imposters to feed and fatten on an unsuspecting public—has raised the cry

that we are organizing a "Medical Trust!" If such it be, then it is a "Benevolent Trust" with this legend inscribed upon its escutcheon—"Pro bono publico!"

Discussion.

Dr. J. Adams Hayne, State Health Officer, Columbia, S. C.:

I am sorry, Mr. President, that more members of the Association were not here to hear this paper.

The success of medical societies depends largely upon the medical legislation which they can introduce into the state—the amelioration of human evils and the prevention of disease, as far as possible. We all, at the present time, when we heard of the appalling disaster of the last few days, were proud to say that we belong to a race which was willing to sacrifice that which was dearest to all men—our lives—to save the women and children. It shows that the civilized world is progressing; that altruism is the watchword.

Medical legislation cannot be effected unless the County Societies approach their legislators and tell them what medical legislation they desire, in order to stamp out the preventive diseases that exist in our state.

At the last session of the legislature many of the representatives whom I approached in regard to medical legislation had never heard that any such legislation was even contemplated. They seemed to have the idea that the one function of the State Board of Health was to stamp out smallpox in South Carolina; they seemed to think that the only thing that the money they had appropriated for the contingent fund was to be spent in stamping out smallpox—a disease which, though loathsome, has perhaps a smaller death rate, not more than 1-10th of 1 per cent—than any disease in South Carolina. There is scarcely any disease that has a smaller death rate, and yet the whole force of the Department of Health is squandered in the fruitless effort to educate the public that smallpox is a preventable disease and can only exist in a community that is so dense and ignorant or so prejudiced that it will not adopt the measures which have been in vogue for nearly two hundred years as being the remedy for the disease—vaccination.

We should inform our legislators that the most important function that they have to perform as law makers is the preservation of the health of the people of the state. That no other constructive legislation that they can do will have as far-reaching effects as the passage of laws for the education of the people of the state. If we can force upon our representatives the fact that if they do not vote for these legislative measures, that we will not support them for office when they come up for

re-election, we can have these measures passed.

If it had been firmly impressed upon the legislators at the last session that if this school measure was not passed they would not be voted for by the medical fraternity of South Carolina, and that that fraternity would exercise every power which it had for their defeat, when they came up before the polls this year, that measure would have passed by a vote of possibly 100 to 1. The one that I am speaking of I do not think could have been convinced by the medical wisdom and wit of our combined body. We have about 1,275 physicians in South Carolina. Each individual physician comes in contact, and is more intimately associated with people than any other man, or set of men, in South Carolina, and any physician can certainly influence fifteen or twenty votes. Multiply that by the number of physicians in this state, and you see what an immense power we have for good. The last legislature allowed an act to go through which gave the State Board of Health power to enact any reasonable rules and legislations. They passed that act because they did not read it, or they would not have passed it, I am sure. They did pass it, however, but I suppose they will repeal it at the next legislature, when they find how far-reaching its effects are. We intend to promulgate a code of laws—and the list of preventable diseases is an extremely long one. With this law at the back of the State Board of Health, it is possible for us to make this state a healthy one. We allow cases of whooping cough to travel on our trains. We all know, as physicians, that whooping cough is much more dangerous in its results to children under one year of age than smallpox has ever been. The death of children from whooping cough and its sequelae is enormous. Also the death loss—not directly from measles, but from its sequelae, is enormous, yet people with this disease are allowed to travel upon the train. In the country the people actually want their children to take this disease. They decline to give us relief for tuberculosis and other diseases.

Dr. J. H. Taylor, Columbia:

I cannot let this discussion pass without emphasizing the historical side of what Dr. Hayne has said relative to health officer and vaccination; even though it be at the expense of the accusation once made against Disraeli. It seemed that Disraeli prided himself upon two things in particular: one was his intimate acquaintance with every phase of English literature, and the other was the curl on his forehead, to which he gave most scrupulous care. While a member of Parliament, a political and somewhat personal enemy misquoted an obscure English author, and Disraeli arose and corrected him, whereupon the speaker became very angry and remarked that "He had rather be a gentleman than a scholar," to which Disraeli replied, "The

gentleman is seldom either." So, it is in no sense of superior knowledge that I correct Dr. Hayne's statement that "for over two hundred years vaccination has been in use against smallpox."

Recently I have had occasion to look up the history of the ancient Hindus, which was first opened to our inspection by the discovery of the key to the Sanscrit language by Sir William Jones. We learn that inoculation against smallpox seems to have been known to the Hindus from a very early age, and was practiced successfully by cowherders shepherds and others. They collected and preserved the dry scabs from the pustules of the cow, a little of which was placed on the forearm and the skin punctured with a needle. From a date far beyond human records, among the establishments maintained at the expense of the little village communities was a village health officer, and, also, an institution for the reception and treatment of sick travelers and animals belonging to them.

Dr. Fillmore Moore, Aiken:

It seems that someone here has made the emphasis that if our people were educated up to the point of demanding this, that our legislators would not dare refuse it to them; and I do not know of any set of men more responsible for the lack of knowledge on the part of the laity than the medical profession. The time has been, and is not yet altogether past, when medical men have delighted to keep their knowledge secret, and it has been part of their stock in trade not to let the people know what the medical men do.

It is too late for that thing to be perpetuated, and if we are to gain for ourselves the standing that we once held in the community, we cannot too soon get to educating the people up to an understanding of these things. Anything that we know that is of value to help people from getting sick can easily be translated into the vernacular of the people. We have no information which can be regarded as private. The one mistake has been in being too exclusive. I hold that it is the duty of every physician in his community to sacrifice his own personal interest, if needs be, in order to protect the interests of the people, and I warrant you that any man who does that will not be long in insuring his own standing in that community and work providing him with bread and butter. It is a mistake to put one's personal aggrandizement ahead of the public welfare, and when that is done—and medical men have been willing to throw stones at the politicians for doing it—they are sure to get the condemnation of the people, sooner or later. That will always come, and justly. So I think that the best thing for the medical men to do to correct these ills is to get busy in their own class, in their own families and communities, and right these wrongs and make these things clear. How many times have we come to

the support of Dr. Wiley for good, sound, local boards of health—the men who have been sacrificing themselves? It is usually after the people have discovered them that we laud them and praise them. Let us get busy, right now.

Dr. Davis Furman, Greenville:

Mr. President, I do not arise to make any speech, but I have already, time and time again, expressed myself on the same lines, and cannot say anything specially new, but I desire to emphasize what Dr. Hayne said and to tell a little incident that happened sometime ago which impressed me with the importance of individual work

During the meeting of the Tri-State Medical Association, I stole down to the state house one night, in the absence of anything better to do, without any idea of doing any political work, and the matter of the public inspection of schools was under discussion at that time. There was a gentleman sitting over there from Greenville county who told me that another man was going to vote against the measure. I went over to him and had a five minutes heart to heart talk and stayed there until I saw how he had voted, and he voted exactly contrary to the way he had intended to vote before. I mention this simply to show that if we go at them individually there is no doubt about our ability to carry any point where right and justice are on our side. And the Board of Health demands, and the people demand, that we put forth our best efforts to aid the accomplishment of the efforts of the Board of Health. If every man will take it upon himself to see some representative and tell him what the situation is, then we will not have what happened here before: men who were really not opposed to the measure voting against it, simply because somebody told them to vote against it.

Dr. G. F. Klugh, Cross Hill, S. C.:

I would like to emphasize the fact that a great deal of the lack of energy in the county societies comes from ignorance among the doctors themselves. I do not exactly know how many members the State Association has, but I imagine it is approximately 800 or 1,000. There are only about a quarter of those here. The ones at home, if they are busy, how are they to know what we have done here? And the new men just entering, practically, of course, know nothing that has been done, say, in the past five or ten years. There is very little way, so far as I can find out, to get at the information. I have made some endeavor myself to find out just what the health office is doing, and exactly what legislation is going through. Of course we can get at the legislation as it goes along if we keep up with the daily newspaper. That is hard for a country practitioner to do. Of course it is easy in the city, but where a country practitioner has eighteen to twenty hours' work to do a day, it is pretty hard to keep up with the newspaper, much less a medical magazine.

Dr. W. B. Ouzts, Edgefield:

It seems to me that the whole of medical legislation is come back to the society. The State Medical Association should map out what legislation is desired, and the county societies ought to be informed in regard to that; in that we, the members of the various county medical societies throughout the state can take the matter up with their representatives, and I feel pretty sure that those laws, if presented to them in an intelligent way—to their man—and the necessity for them, that there would be no difficulty whatever in obtaining any medical legislation that would be needed. Now I think it must go back to the county medical societies, and must start there, if we hope to be successful in accomplishing anything.

Dr. A. Moultrie Brailsford:

Mr. President and Gentlemen: I am certainly very much pleased with the discussion my paper elicited. I regret I had so little time to give to a subject of such great importance.

I was particularly interested in Dr. Hayne's discussion, covering a wide field and showing a practical knowledge of the entire situation.

Dr. Taylor's remarks were very entertaining from an historical point of view. If the ancients employed better sanitary measures than we do today, we should be all the more ashamed of our condition and bestir ourselves to improve it. Looking back to the "glory that was Greece, and the grandeur that was Rome," we find the people of that age superior to us in literature and art, and, since sanitation was taught at even an earlier day, it seems there is nothing left to the boasted progress of the twentieth century except improvements along mechanical lines.

The object of my paper was simply to strike at the root of the matter by hitting our legislators in a vital spot—and that is the vote!

If the public are properly instructed in sanitary measures, they will co-operate with us in having them enacted into laws and enforcing them.

Society Reports

CHARLESTON COUNTY MEDICAL SOCIETY.

The Medical Society of South Carolina (Charleston County) held its annual meeting at the St. John's Hotel at 8:30 p. m. Dec. 9, 1912. About forty of the members were present.

Reports of officers and committees were had and then the election of new officers was taken up. The following

having been nominated at the preceding meeting were now elected:

President—Dr. J. C. Mitchell.

Vice-President—Dr. E. F. Parker.

Treasurer—Dr. D. L. Maguire.

Librarian—Dr. Nathan.

Secretary and Corresponding Secretary—Dr. R. M. Pollitzer.

Delegates to State Association—Drs. Parker, W. H. Johnson, T. G. Simons, Kollock.

Alternates—Drs. Aimar, Buist, Ball and Finger.

Censor—Dr. G. McF. Mood.

Commissioners of Roper Hospital—Drs. Rutledge and Buist.

Trustees of Roper Fund—Drs. Boykin and Pearlstine.

The meeting then adjourned and its members present marched to the dining hall where an elaborate and substantial dinner claimed their attention for several hours.

As the night progressed some toasts and speeches were offered.

R. M. POLLITZER, Cor. Sec.

PICKENS COUNTY MEDICAL SOCIETY.

At the regular December meeting of the Pickens County Medical Society, the following officers were re-elected to serve during the year 1913:

Dr. C. N. Wyatt, President.

Dr. R. J. Gilliland, Secretary and Treasurer.

Dr. W. A. Tripp, Delegate to the South Carolina Medical Association.

Dr. W. A. Woodruff was elected Vice-President instead of Dr. Jarrett, who has moved out of the county.

Dr. J. L. Bolt was elected a member of the Censor committee.

R. J. GILLILAND, Sec.-Treas.

SPARTANBURG COUNTY MEDICAL SOCIETY.

On Dec. 28, 1912, the Spartanburg County Medical Society held a special meeting for the purpose of hearing ad-

resses by Drs. William Pepper, Dean of the Medical Department of the University of Pennsylvania, Charles Norris, Associate Professor of Gynecology in the University of Pennsylvania, Henry Norris, Chief Surgeon of the Rutherfordton, (N. C.) Hospital, and Mumroe, of Charlotte, President of the North Carolina Medical Society. These visiting physicians were in the city as guests of Dr. Baxter Haynes and after the meeting Dr. Haynes entertained his guests and the Medical Society at a smoker in the Finch hotel.

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The Spartanburg County Medical Society held its annual meeting on December 20, 1912. The reports of the President and Secretary showed that the Society had had a most successful year, the meetings had been better attended, four new members were gained and the Society had taken more interest in public health matters.

At this meeting resolutions recommending to the public the use of Typhoid Bacteria as prophylaxis against typhoid fever and the use of the sanitary privy in rural communities were adopted and ordered printed in the daily papers. The Society also endorsed the action of the South Carolina Federation of Women's Clubs in their renewed efforts in behalf of the medical inspection of schools bill and in their support of a bill to increase the appropriation for the State Board of Health.

The election of officers resulted as follows:

President—W. H. Chapman, Spartanburg, R. F. D.

Vice-President—W. W. Boyd, Spartanburg.

Secretary—L. Rosa H. Gantt, Spartanburg.

Treasurer—W. B. Lancaster, Spartanburg.

Censors—Drs. W. J. Chapman, In-

man; D. R. Norman, Fairforest; J. R. Brown, Spartanburg.

Delegates to South Carolina Medical Association—Drs. Baxter Haynes, Spartanburg; J. J. Lindsay, Spartanburg, and S. T. D. Lancaster, Pauline.

At this meeting Dr. J. T. Smith, of Greer, was elected a member of the Society.

L. ROSA H. GANTT, Sec.

Current Medical Literature

STIMULATING REPARATIVE CELL GROWTH.

The researches for which Dr. Alexis Carrel was awarded the Nobel prize have in effect been studies of the life of the cell. Following up the work of Dr. Harrison, who grew cells of the nerve ganglia of the frog in a drop of blood plasma, Dr. Carrel and his associates have apparently demonstrated that life has its possibilities in the individual cell. Pieces of arteries have been removed from animals, kept for months, and successfully grafted on the arteries of other animals. As has already been pointed out in these columns, Dr. Carrel has found it possible to transplant organs such as the kidneys from one animal to another, though the organ thus transplanted eventually lost its functions. A still farther step in the study of cellular life has been made by Dr. Carrel, who finds that the growth of the cell may be accelerated by introducing into the medium in which it lies certain tissue extracts.

Five years ago Dr. Carrel undertook a series of studies hoping to demonstrate the possibility of increasing the activity of cell formation so as to lessen the time required for the reparative process in superficial wounds.

Finding it impossible to control the conditions in the living animal with sufficient accuracy he began a series of experiments *in vitro*, the results of which are made public in *The Journal of Experimental Medicine* for January, 1913.

In these experiments small fragments of the heart tissue of the chicken were placed in a mixture of blood plasma, water, and extractive from various tissues. The cellular growth of these fragments was compared with the growth of similar fragments in plasma which contained no tissue extract. The tissue extracts were made from chick embryos from six to twenty days old and from the spleen, the kidney, and other organs of adult chickens and from specimens of Rous's chicken sarcoma. It was found that under proper conditions as to temperature, etc., the extracts caused the cells to grow from three times to forty times as rapidly as did the cells immersed in the plasma alone. The extract from embryos was found most active, although the extracts from the spleen and from the Rous sarcoma were nearly as efficient in activating cell growth. Similar studies were made with the dog and with the rabbit. Apparently the results of these experiments point the way toward the acceleration of the reparative processes in wounds. If the stimulation of the cell growth by the tissue extract proves as great in the animal as it has *in vitro*, superficial wounds could be healed in less than twenty-four hours and a broken leg in four or five days.

Unfortunately, however, it was observed that the stimulant effect of the tissue extract is specific, being confined to like animals. The extract from a dog's spleen, for instance, did not stimulate the growth of chicken or rabbit cells. The practical bearing of this

observation is of grave importance, indicating that we cannot expect to obtain the best results in the stimulation of reparative growth in man unless we use extracts prepared from the tissues of human beings. It would seem reasonable to hope, however, that tissues from nearly allied animals might produce satisfactory results in stimulating cell growth. No reports are made of any studies along this line, but in view of the remarkable progress which has been made by Dr. Carrel and his associates, it is not too much to expect that probably our first practical result from these studies will be the discovery of some means of accelerating the reparative processes so as materially to cut down the time required for the healing of wounds.—Editorial, *New York Medical Journal*, Jan. 11, 1913.

DISTRIBUTION OF PELLAGRA IN THE UNITED STATES.

The occurrence of from thirty to fifty thousand cases of pellagra in the United States within the last six years with a death rate of about 39 per cent. calls attention to this disease as one of national importance. The fact that the figures given above constitute only a rather rough estimate of the number of cases again directs attention to the very defective machinery for securing vital statistics in this country.

Although it is outside the province of the United States Public Health Service to collect such statistics, Lavinder, of that service, has attempted to gather figures concerning the prevalence and distribution of pellagra in the United States. The pellagra area lies to a large extent outside the registration area of the country and the figures obtainable through the United States Census Bureau are almost a negligible quantity. Lavinder, therefore, endeavored to secure figures from state authorities, from public institutions and

from private sources, and though this method of securing information is never accurate or satisfactory, yet he believes that it may be said with some degree of assurance approximately how much pellagra there is in the United States and where it is to be found. A map is given showing that pellagra has been reported from every state in the union except New Hampshire in the east and the group of western and northwestern states comprising Idaho, Minnesota, Montana, the two Dakotas, Utah, Wyoming and Nevada. The greatest prevalence is found in the group usually spoken of as the Southern states, which group of states, with the exception of Kentucky, is practically all outside the registration area. In only one state is the disease reportable by law.

Many interesting facts concerning pellagra are given in Lavinder's report but, as emphasized by him, although pellagra cannot be compared in prevalence with such a disease as typhoid fever, for example, yet the large number of cases and the high mortality rate together with its wide and apparently increasing distribution make it a disease of national importance, and afford an additional reason why every state not already having adequate vital statistics laws should at once enact such laws. The aid which accurate figures and facts concerning the epidemiology of this important disease would give in the solution of the problem of pellagra should alone be sufficient to demand the enactment of such laws in the coming legislatures of every state not now within the registration area.—Editorial, *Journal A. M. A.*, Jan. 11, 1913.

THE INFECTIOUS-DIETETIC HYPOTHESIS OF PELLAGRA.

Generally speaking, there are two divergent views as to the nature of pel-

lagra, the zeistic and the antizeistic. According to the zeistic view, pellagra is essentially a dietetic disease depending on an undue preponderance of maize in the diet or on the use of spoiled maize. This view consequently places pellagra in the same class with beriberi and scurvy. There is no experimental evidence, however, to support the zeistic hypothesis which is especially prevalent in Italy. According to the antizeistic view pellagra is an infectious disease, the infecting agent being as yet unknown. From a consideration of the facts at hand in regard to the occurrence of pellagra in general, Sambon felt warranted in asserting that certain species of *Simulium*—black fly, sand fly—are carriers of the virus, but so far no convincing evidence of experimental nature has been obtained to support Sambon's view.

Recently the idea has been advanced that pellagra may be due to an infection of the intestinal canal and that a diet insufficient in animal protein may predispose to the development of the disease (Illinois Pellagra Commission). This conception rests on the frequent occurrence in pellagra of marked gastro-intestinal symptoms associated with inflammation and ulceration of the intestinal lining, on evidences, clinical as well as anatomic, of a general intoxication, and on the fact that the diet in hospitals for the insane in which pellagra has developed, and of the Italian peasantry which has suffered so greatly from the disease, has been rather low in animal protein. This view constitutes a combination of the zeistic and antizeistic hypotheses and would seem to possess elements of value as a working hypothesis because it indicates definite but broad lines along which to direct preventive efforts. If this infections-dietetic hypothesis is adequate, pellagra can be

prevented by means of proper diet or by the prevention of the infection, whatever its nature may be, and most effectively by the combination of these methods. So many foci of pellagra have been discovered in the insane hospitals of the United States during the last few years, and it is so difficult to control the diet of the individual insane patient, although the dietaries of such hospitals may leave nothing to be desired, that it would seem clearly indicated that measures to prevent the hypothetic infection must not be neglected. In its report the Illinois Pellagra Commission is silent on this point. If pellagra is infectious, then one source of the infection, and probably the most important, is the pellagrous patient, so that the necessity for preventing the spread of the infection by direct and indirect means needs no emphasis.

It is doubtful if conditions here permit sufficiently practical tests of the infections-dietetic hypothesis of pellagra to give conclusive results; but when the means of prevention of this disease are considered on the basis of an infectious hypothesis, then the most likely source of infection should not be overlooked.—Editorial, *Journal A. M. A.*, Jan. 11, 1913.

A NEUROLOGIST ON FREUD'S THEORIES.

The dissemination of Freud's theories has brought out a great deal of what seems to be to some extent partisanship on the part of neurologists. While his views have somewhat the effect of a red rag to a bull on some neurologists, by his adherents they appear to be regarded as almost sacred. Of course, the heated discussions which have taken place with regard to the Freudian dicta have had something to do with the attitude assumed by pro-Freudians. For, after all, it is only natural that when theories in which a

man believes are sharply assailed they should be as strongly defended. Of course, to the ordinary individual and even to the practitioner not skilled or deeply read in neurology, the statements made by Freud as to the influence of sexual instincts on the origin and causation of neuroses savor of gross exaggeration. But even to many neurologists who freely allow that such instincts are factors in the production of neuroses, it nevertheless appears evident that Freud and his disciples have overstated their case and carried their theories to an almost absurd length. In this country Starr and others have dissented from Freud's views on more than one occasion, and in Europe several of the most renowned nerve specialists have argued more strongly by far against their acceptance. At a meeting of the Swiss Society of Neurology which took place at Lucerne on November 9 and 10, an account of which is given in the *Lancet*, November 23, 1912, Professor Ladame of Geneva in a report on neuroses and sexuality gave a complete resume of Freud's theories. He pointed out that Cramer, Lowenfeldt, and Oppenheim have seriously opposed the theory of pan-sexuality and that quite a number of other authors have combated what they believed to be exaggerated and inexact views. Kurt Mendel wrote a biting satire on Freud's typical infant, whose suction of the thumb and childish sports were referred exclusively to the sexual sphere. As for the dangers of sexual abstinence, so strongly dwelt upon by Freud, in the opinion of Ladame those dangers are non-existent. Ladame considered that a capital mistake had been made in confounding the functions of nutrition and those of reproduction.—Editorial *Medical Record*, Jan. 11, 1913.

PROBLEMS IN GASTRO-ENTEROSTOMY.

Concerning the behavior of the stomach after gastro-enterostomy there are some things of which we are quite in doubt and some that we have accepted on perhaps insufficient evidence. It has been taught, and cases have been adduced in support of it, that if the pyloric outlet of the stomach is not occluded, pathologically or surgically, a gastro-enterostomy will close. At a medical meeting a year or more ago a well-known surgeon reported a case in which he had performed simple gastro-enterostomy ten years previously. A few years later the symptoms recurring, he performed a pyloroplasty for, so he stated in undoubted good faith, he found at this second operation that the gastro-enterostomy had closed. Soon after this report the editor performed a third operation upon the same patient and found the original gastro-enterostomy unquestionably wide open!

How true is the rule that a gastro-enterostomy will close if the pylorus is left patent? Will a "pyloric exclusion" suture completely close off the pylorus? Will a thus excluded pylorus remain excluded, or will not the outlet gradually reform? Does an artificial stomach outlet (gastro-jejunal) interfere with the normal peristaltic cycles of the stomach? Does the food pass prematurely through a sphincterless gastro-jejunal opening, or does a sphincter-like action develop there?

The solution to these, and similar problems, is of great surgical importance. Some of them cannot be determined by autopsies, post-mortem or in vivo, and for others, subsequent inspection, the opportunities for which are only occasional, may yield, as we have seen, faulty observations. The questions can be answered, however, we believe, by the expert x -ray examination of a large number of patients at vari-

ons periods after various types of gastro-enterostomy. At our suggestion, Dr. Lewis G. Cole, of New York, whose excellent studies in "serial radiography" of the stomach and intestine establish his entire competence for the work, is undertaking an *x-ray* inquiry into these problems in gastro-enterostomy. His results, which we await with great interest, will be published in due time in the *American Journal of Surgery*.—Editorial, *American Journal of Surgery*, January, 1913.

From the Lay Press

PINELAND PENCILINGS—IMPRESSIVE SCENES AT THE PINE FOREST INN. A DISTINGUISHED DOCTOR.

News and Courier, Dec. 20.

Dr. J. B. Murphy, of Chicago, is a celebrated specialist, and is as popular in Society as he is thoroughly posted in surgery. He is at home on the links and is a skillful golfer. He is accompanied by Dr. E. N. Hurley and Mr. H. Benedict, also of Chicago. One could not wish for a more agreeable trio. They are known as the "Three Guardsmen" and they are as fond of fun as were the three famous guardsmen whom Dumas immortalized. Mrs. Aterbury, who is as bright as she is beautiful, says that if Dr. Murphy were in Europe he would be created a Knight, and she added that an appropriate title would be Sir Lance-a-lot. One intends to ask Dr. Murphy if he has been correctly informed as to the origin of the name of his populous and prosperous state. It has been stated that when the west was a wilderness an Indian had his wigwam near where Chicago was built, and that an Irish doctor visited there. He was favored with a good stock of patience, but had no patients. He was proud of his profession, because, as he said, it was bet-

ter than his practice. He was called to attend the Indian who was sick, and he placed a fly blister on the red man's chest. The invalid growled at a great rate, and the doctor, in answer to the question of an Englishman, who had just arrived, and wanted to know if the Indian was ill, shouted "yes, ill and noise." After this the red man spoke of his domain as Illinois.

COMMITTEE TO TRY TO GET HOSPITAL HERE.

Record, Dec. 20.

Yesterday the board of directors of the Columbia Chamber of Commerce appointed R. Beverly Herbert, as chairman, and E. L. Wingfield and James Norwood a committee to confer with the Baptist sanitarium commission in the endeavor to secure the proposed sanitarium for Columbia.

CONWAY'S UP-TO-DATE HOSPITAL—DR. H. H. BURROUGHS AT HEAD OF INSTITUTION—SPLENDID PLANT.

News and Courier.

Conway, Dec. 19.—The Burroughs Hospital, which opened its door to the public on Friday last, is one of the best appointed institutions of its kind in the Pee Dee. Situated on a high hill in the midst of a beautiful grove at the intersection of Laurel street and Eighth avenue, makes the location an ideal one indeed. The building, which was formerly occupied by the Burroughs & Collins Company, has been thoroughly renovated and transformed into an infirmary that would do credit to any city thrice the size of Conway. Some \$3,000 has been expended for equipments and furniture. The total value of the property will now exceed \$8,000.

There are twenty-three elegantly furnished rooms in the building, twelve of which can be used for patients' apartments. All the rooms are

equipped with an eye toward making the hospital thoroughly modern in every respect. The spacious halls, reception rooms and well lighted and thoroughly heated and ventilated patients' rooms make the interior very attractive. There are baths and lavatories on both floors, and the water used in the building comes from one of the purest wells in this section of the state.

The operating room contains all the paraphernalia that modern skill and science can supply, and is equal if not the superior of any its size in the state. Adjacent to this room is the sterilizing room, which is always a necessary adjunct to successful operations. There is also a well furnished laboratory and a drug room will be installed within the next few weeks since Dr. Burroughs intends to maintain an office in the hospital, as well as down town.

The hospital is in charge of two splendid trained nurses, Miss Esther Faircloth and Miss Nina Burroughs. Miss Faircloth is quite well known here, having nursed a number of cases in the county and Conway. She is a graduate of the Thompson Hospital, of Fayetteville, N. C. Miss Burroughs is a sister of Dr. Burroughs, and is a native of the county. She recently graduated from the Roper Hospital, of Charleston. Both these young ladies are well qualified for their chosen profession.

Dr. H. H. Burroughs, for whom the hospital is named, is one of Horry county's leading physicians, having had several years of successful practice in medicine. He is eminently qualified to direct such an institution and has the confidence of the public. The building and maintaining of such an enterprise has been the dream of his life, and it was with the aid of the Burroughs Collins Company that he was able to realize his hopes.

DORCHESTER MEDICAL ASSOCIATION.
INTERESTING MEETING WINDS UP
WITH DELIGHTFUL BANQUET.

News and Courier.

St. George, Dec. 11.—The annual meeting of the Dorchester County Medical Association, which was held in the Masonic Temple yesterday evening, proved to be an event of pleasure and interest both socially and professionally. While the attendance was somewhat disappointing, especially because of the absence of several Charleston physicians who had accepted invitations to be there, the enthusiasm manifested on the part of those present and the animated way in which the various discussions were engaged in showed that the organization is in a most flourishing condition. Besides every physician of Dorchester county the membership includes a number of those of adjoining counties.

After the transaction of the business of the meeting a most sumptuous and delightful banquet was enjoyed. This feature of the occasion was under the direction of Mrs. Leon A. Reed, assisted by Misses Connie Johnston, Sonita Breunam and Tressa Sheider, and the artistic taste and keen discernment of these young women resulted in the conception and execution of an affair which not only reflected credit upon them, but won the appreciation and admiration of everybody whose good fortune it was to enjoy the occasion.

Seated about the banquet board were the following prominent members of the medical fraternity and well known citizens: The Rev. J. W. Airail, Dr. W. A. Kirby, Dr. W. P. Shuler, of Grover; Dr. Carlisle Johnston, Dr. A. R. Johnston, Dr. Simons, of Summerville; Dr. J. B. Johnston, Dr. Allen S. Behling, Dr. P. M. Judy, Dr. John Wimberly, of Branchville; Dr. M. B. Johnston, Dr. Julius W. Wellborn,

Messrs. I. E. Mims, Joseph Murray, Olin Horne, John Henry Behling, William Rigby, D. M. Baxter, Leon Reed, Lewis Hutto and L. Virgil Minus.

HEADS MEDICAL SOCIETY—DR. W. B. SPARKMAN ELECTED PRESIDENT OF GREENVILLE COUNTY MEDICAL SOCIETY LAST EVENING.

Greenville News, Dec. 11.

At the last regular monthly meeting of the Greenville County Medical Society Dr. W. B. Sparkman was elected president. Dr. W. H. Powe was chosen vice-president; Dr. S. G. Glover, secretary, and Dr. R. C. Brince treasurer. Drs. Chas. H. Fair, L. O. Mauldin and E. W. Carpenter were elected delegates to the next meeting of the State Medical Society.

SUMTER PHYSICIANS ELECT NEW OFFICERS.

Special to The Record.

Sumter, Dec. 13.—At a recent meeting of the Sumter County Medical Association the following officers were elected to serve for the ensuing year: President, C. J. Lemmon; Vice-President, M. L. Parler; Secretary and Treasurer, E. R. Wilson; delegate to the State Association Convention, R. B. Furman, of Privateer.

The meeting was at the residence of Dr. F. M. Dwight at Wedgefield and a most enjoyable session was held. This association is several years old and is a source of much encouragement and aid to the county physicians.

STATE HEALTH BOARD MEETS—REPORTS FOR YEAR SUBMITTED AND NUMBER OF INSPECTIONS OF STATE INSTITUTIONS WERE MADE.

State, Dec. 13.

Reports for the year were submitted and several important matters discussed at the annual meeting of the State Board of Health, which was held

here yesterday. The reports on the various phases of the work by the Board were submitted. An interesting report showing the results of the year's work was received from Dr. J. A. Hayne, the State health officer.

In recognition of his work during the year, the salary of Dr. F. A. Coward, director of the laboratories of the Board, was increased from \$2,000 a year to \$2,500.

Yesterday afternoon the Board made a trip of investigation to the state penitentiary. "We hold that the hosiery mill at the state penitentiary still remains a menace to the health of the convicts," said Dr. Hayne yesterday after the trip.

The plans for the sewerage system at State Park, the new state hospital for the insane, were approved after a trip to the property, which is located eight miles north of the city.

The members of the State Board of Health in attendance yesterday were: Dr. Robert Wilson, Jr., Charleston; Dr. W. J. Burdell, Lugoff; Dr. C. C. Gambrell, Abbeville; Dr. D. B. Frontis, Ridge Springs; Dr. William Lester, Columbia; Dr. William Dodson, Greenville, and Dr. W. M. Eggleston, Hartsville. Dr. Wilson is the chairman.

MEDICAL SOCIETY LIBRARY—ROOMS HAVE BEEN RENTED AT Y. M. C. A. BY PHYSICIANS OF COLUMBIA.

State, Dec. 13.

The Columbia Medical Society has rented a room in the Y. M. C. A. building for the purpose of establishing a library. Current literature on medicine and scientific text books, histories and works of all kinds bearing on the science of medicine will be collected, the purpose of the Society being to purchase a number of volumes, and to receive contributions from any persons who may have suitable books to give.

Doubtless in many a library in South Carolina there are old medical books that are of no interest or account to their possessors, but that to the Columbia Medical Society would be of great scientific value. There are also probably individuals who possess valuable books on medicine who would be glad to entrust them to such a library for safe keeping. The Columbia Society would accept such books either as permanent donations or as loans and of course would insure them careful preservation.

The library is on the second floor of the new Y. M. C. A. building on the Hampton street side and is amply large, being 20x16 feet. It will be comfortably furnished, the Society having entrusted the selection of suitable equipment to a committee composed of Dr. S. B. Fishburne, chairman; Dr. Lindsay Peters and Dr. S. E. Harmon.

The Columbia Medical Society now has an enrollment of 62 members, the largest membership in its existence, and is in a more prosperous condition than ever before.

HOOKWORM CONFERENCE ENDS—DR. LABRUE WARD, OF CHARLESTON, ELECTED SECOND VICE-PRESIDENT OF THE ASSOCIATION.

State.

Little Rock, Ark., Dec. 19.—The Southern conference for the eradication of the hookworm closed its annual session here today with the election of officers. Dr. Olen West, Nashville, was chosen president; Dr. A. G. Fort, Atlanta, Ga., and Dr. LaBruce Ward, Charleston, S. C., first and second vice-presidents, respectively, and Dr. S. D. Porter, New Orleans, secretary-treasurer. The executive committee was empowered to name the time and place of the next meeting.

More aggressive State Health Departments and the co-operation of

these bodies with state educational departments in combating disease through campaigns of education were among the principal topics discussed during the day.

COUNTY MEDICAL SOCIETY—INTERESTING SESSION HELD YESTERDAY IN CHAMBER OF COMMERCE ROOMS.

Greenville News.

The Greenville County Medical Society held its regular monthly meeting yesterday at noon in the Chamber of Commerce rooms with a large attendance. The president of the Society, Dr. W. B. Sparkman, presided. Many questions of interest to the doctors were discussed in addition to the usual clinical cases.

COLUMBIAN MADE OFFICER—DR. GUERRY ELECTED TREASURER OF SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION AT ANNUAL MEETING.

State.

Newport News, Va., Dec. 19.—The Southern Surgical and Gynecological Association adjourned today after selecting Atlanta, Ga., as the next meeting place and elected these officers: President, Dr. John Young Brown, St. Louis; 1st Vice-President, Dr. J. L. Vance, Louisville; 2nd vice-president, Dr. Lomax Gwathmey, Norfolk, Va.; Secretary, Dr. W. D. Haggard, Nashville, Tenn.; Treasurer, Dr. LeGrand Gnerry, Columbia, S. C.

Dr. Floyd McRae, of Atlanta, was named chairman of the committee on arrangements for the next meeting.

Book Review

Skin Grafting—For Surgeons and General Practitioners, by Leonard Freeman, B. S., M. A., M. D., Professor of Surgery in the Medical Department of the University of Colorado; Surgeon to St. Jos-

eph's Hospital, the National Jewish Hospital, and the City Hospital, Denver, Colorado. With 24 illustrations. St. Louis: C. V. Mosby Company, 1912. Price \$1.50 net.

This is an exceedingly interesting monograph on skin grafting. We confess a decided preference when possible to monographs as a means of disseminating knowledge.

The personal touch of the author seems more evident than is the case in other writings. This small book cannot fail to prove helpful to any practitioner of Medicine and Surgery.

The history, the possibilities of skin grafting and the actual technic and results are clearly set forth.

* * *

International Clinics—A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pediatric, Obstetrics, Gynecology, Orthopedics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene, and other Topics of Interest to Students and Practitioners, by leading members of the Medical Profession throughout the World. Edited by Henry W. Cattell, A. M., M. D., Philadelphia, U. S. A. Volume 4, Twenty-second Series, 1912 Philadelphia and London: J. B. Lippincott & Co. Price \$2.00.

Volume 4 of this series is very full and well worth reading from cover to cover. There are splendid articles on Diabetes, Exophthalmic Goiter, Arterio-Sclerosis, Enucleation of the Tonsils, Weak Feet, the Stein Pessary.

We note with pleasure that Dr. Le Grand Gneyry, of Columbia, S. C., has a contribution on the Surgery of Pellagra from a Diagnostic Standpoint.

We were particularly interested in a Biography of Benjamin Rush and also with a description of the Rockefeller Institute for Medical Research. The latter article is well illustrated.

* * *

The Practical Medicine Series—Comprising Ten Volumes on the Year's Progress in Medicine and Surgery. Under the general editorial charge of Gustavus P. Head, M. D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School; Charles L. Mix, A. M., M. D., Professor of Physical Diagnosis in the Northwestern University Medical School. Volume 9. Skin and Venereal Diseases, Miscellaneous Topics, edited by W. L. Baum, M.D., Harold N. Moyer, M. D. Chicago: The Year Book Publishers, 180 N. Dearborn St. Price \$1.25.

Following the discovery of Salvarsan a great impetus was given to the study of Skin and Venereal Diseases. This book goes into the later views and later investigations exhaustively.

There is an extensive section on mis-

cellaneous topics, which includes Medical History, Medical Education, Eugenics, Medico-Legal matters, etc.

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A. H. WIDEMAN, M. D., Bradley, S.C.

Members who fail to receive the JOURNAL are requested to notify the Editor. New papers will be mailed immediately.

Journal South Carolina Medical Association

Published Every Month Under the Direction of the Board of Councilors.

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All matters must be in the hands of the Editor by the 30th of each month.

Proofs of all original articles appearing in the JOURNAL are revised and corrected by their authors. The JOURNAL is in no sense responsible for expressions in original articles.

Business communications relating to subscriptions and advertising should be addressed to JOURNAL SOUTH CAROLINA MEDICAL ASSOCIATION, Seneca, S. C.

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FEBRUARY, 1913

No. 2.

Editorials

Provisional Program of the Sixty-Fifth Annual Meeting of the South Carolina Medical Association, to be Held at Rock Hill, S. C., April 16, 17, 1913.

(Subject to Rearrangement for Final Program.)

Address, Dr. J. Allison Hodges, Richmond, Va.

"Personal Sanitation," by Dr. F. A. Coward, Columbia, S. C.

"Home Sanitation," by Dr. Wm. Egleston, Hartsville, S. C.

"Municipal Sanitation," by Dr. G. McF. Mood, Charleston, S. C.

"Quarantine," by Dr. R. L. Wilson, Charleston, S. C.

"Country Sanitation," by Dr. J. Adams Hayne, Columbia, S. C.

"School Sanitation," by Dr. L. Rosa H. Gantt, Spartanburg, S. C.

"Causes of High Infant Mortality and How it May be Reduced," by Dr. Wm. Weston, Columbia, S. C.

"A practical Method of the Estima-

tion of the Renal Function," by Dr. J. L. Dawson, Charleston, S. C.

"Ureteral Calculi," by Dr. A. B. Knowlton, Columbia, S. C.

"Spina Bifida," by Dr. G. A. Neuffer, Abbeville, S. C.

"The Value of Serum Reaction in the Diagnosis of Syphilis, and in the Detection of Recurrences," by Dr. G. F. McInnes, Charleston, S. C.

"The Explanation of the Bearing Upon Vitality of the Characteristic Symptoms of Meningitis, With Conclusions, as Regards to Treatment," by Dr. J. F. Townsend, Charleston, S. C.

"Pus Tubes With Special Drainage," by Dr. W. C. Black, Greenville, S. C.

"Diet in Disease," Dr. C. C. Geer, Greenville, S. C.

"Medical Inspection of Schools," by Dr. Theo. Maddox, Union, S. C.

(Subject Unannounced), Dr. R. E. Hughes, Laurens, S. C.

(1) "Congenital Defects of the Stom-

ach." (2) "Gases in the Stomach," by Dr. F. M. Durham, Columbia, S. C.

"Prophylaxis Prognosis and Treatment of Tuberculosis," by Dr. E. L. Patterson, Barnwell, S. C.

"The Physician's Opportunity," by Fillmore Moore, Aiken, S. C.

"The General Surgeon and His Work With Report of My Last 100 Operations," by Dr. R. T. Ferguson, Gaffney, S. C.

"Beneath the Cover Glass," by Dr. N. T. Clark, Campobello, S. C.

"A Further Report on Laryngeal Diphteria," by Dr. W. E. Carpenter, Greenville, S. C.

South Carolina a Dark Spot on the Map.

Bulletin Number One just issued by the new Children's Bureau of the United States Government treats of Birth Registration. A significant map herein given shows four black spots for the States of South Carolina, North Carolina, Georgia and Arkansas, indicating no laws on the subject whatever. All the other States have enacted laws more or less efficient. It is fitting that the color should be black so far as South Carolina is concerned, for we have no excuse as a people. The minutes of the very first meeting held in Charleston, Feb. 14, 1848, for the purpose of organizing the South Carolina Medical Association, in its first official act, adopted the following resolution:

Resolved, That a committee of five be appointed to report on the recommendation of the National Medical Convention, to the Medical Profession, to use their influence to have established in their respective States, a Registration of Births, Marriages and Deaths.

The report of this Committee later

shows that its efforts were finally successful and a law was placed on our Statute Books in 1853. It is highly probable that the war virtually put an end to its beneficent provisions.

Dr. W. B. Taylor, of Columbia, in his presidential address, 1884, urged the importance of a vital statistics law—and it is probable a careful search for the facts will disclose some efforts to secure such laws.

The point we wish to emphasize is, that we have waited 60 years and surely we should now enter upon an unrelenting campaign for the passage of an act to provide for the registration of all births and deaths in South Carolina. Practically every country in the civilized world has such laws and in fact almost every other State in the Union, except South Carolina. We were no doubt one of the first States (1853) to take favorable action. Let us do so again!

The Provisional Program.

The provisional program made up of the titles of papers so far received is published so that the members may know of our progress.

About half the number of papers necessary have been promised. The general call was sent out early in the month.

Further additions to the provisional program will be published in the March JOURNAL and the final program mailed to each individual member of the Association early in April. The sooner we have all the titles, however, the better, so that the Scientific Committee can complete its work.

Original Articles

SOME GENERAL OBSERVATIONS UPON AMPUTATIONS, WITH SPECIAL REFERENCE TO THE LOWER EXTREMITIES.*

By Chas. M. Rees, M. D., Charleston, S. C., Professor General and Clinical Surgery, Medical College of the State of South Carolina.

I desire, first, to express the pleasure which it gives me to attend this meeting of the Second District Medical Association, and to accept in person the very kind invitation from the Bamberg County Medical Society. I never, if possible, miss the advantage of meeting with the medical men away from my own city and cultivating closer social and professional acquaintance.

I have been very much impressed with the benefits to be derived from a better understanding of one another gained only by an intimate knowledge of our colleagues living in the same city, town or county. By these meetings, differences, which at best are generally imaginary, are abolished.

Medical men, as a rule, are a good set of fellows--they have been prepared by their calling for lives of self-sacrifice for the benefit and comfort of others, for finding what that is good lies in others and for forgetting the bad. This is strikingly true with regard to their relations with outsiders, but the contrary is equally as striking in its truth in far too many cases among colleagues.

When we consider the relations of medical men one to another, it is marvelous how interdependent they are, how mutual are their interests under circumstances and conditions which are more or less identical in all communities.

*Read before the Second District Medical Association at its Semi-Annual Meeting at Bamberg, S. C., January 8, 1913.

Quoting from Dr. McCormack in an address upon "Methods and Benefits of Medical Organizations," "Altho they constantly need each other's help, as no other men can ever do, one is likely to find that the spirit of envy and jealousy pitched on a plane so low, almost beyond conception, not only deprives them of these, but so divides them and impresses the community as to greatly lessen the respect and confidence due of these otherwise worthy men and the great profession they alone represent in that community. Often they quarrel about diagnoses in which both are wrong, about patients who would not pay either of them, or about violations of the code which neither of them have read. That each is afraid to collect some of his hard earned fees because he is afraid the other will inherit some of his offended patrons. Proficiency in medicine or surgery or some special work is dwarfed by the fact that one will send for consultation to a distant town or city, rather than ask his neighbor for assistance. Families are so estranged, they are deprived of social relations and pleasures of which both are desirous." Happily the relations of medical men to each other are improving, are already vastly better. Petty jealousies and bickerings are passing, and why? "Investigation has shown that this condition is common to all unorganized vocations whose members lead segregated lives. It is a recognized fact that the inhabitants of islands are suspicious and sensitive. It has been observed on the other hand, that lawyers have always lived together in peace and plenty. This is not because they are better or that their profession is a broader one, but for the reason that in the ordinary pursuits of their calling they are brought into constant contact with each other, come to know each other, and being worthy men in

the main, with mutual respect and tolerance for each other's faults and shortcomings, naturally they come together in mutual interest and all realize the benefits."

I beg to apologize for the wide digression from the subject which I have to offer for discussion today. All that I have said as a preliminary has been said before and with much more force than I have been able to do and my purpose has been merely to emphasize the benefits of meetings such as these.

It has been my privilege for the past five years in teaching General and Clinical Surgery to operate upon a large number of cases for amputation of limbs. The majority of these cases have been amputations at various points upon the lower limbs. There are, however, some general principles in technique which apply to all amputations and which I desire to recall to your notice.

It has been my observation that as a class this operation has been neglected. We have accepted many traditions from the masters in surgery of the past when amputations were probably the most important operations. Surgery of this class was destructive rather than constructive in character. Formerly students were instructed for weeks how to perform an amputation, but to-day few students learn how properly to perform such an operation. Many traditions of today are inherited from pre-anaesthetic and pre-antiseptic days, when the skill of the surgeon was measured by the despatch with which he cut off a limb while preserving enough flap to cover the end of the stump. Today, besides removing all the diseased tissue, painstaking attention and caution is taken to give the patient a painless, serviceable and slightly stump. As an amputation is an operation which any general practitioner may be called upon at any time

to perform, and most of you, no doubt, have been so called, a few general observations may not be out of place in determining upon an amputation.

Today, in traumatic cases, we should decide upon the amputation only when we can feel that it is reasonably certain that the soft parts of the limbs are damaged beyond salvation. Who can say what extent of tissue destruction will render impossible the saving of a limb? The answer to this question depends upon a variety of factors which should be carefully considered in every severe traumatism of a limb. A robust young man, without disease of heart or kidneys, without taint of tuberculosis or syphilis or diabetes, may suffer a severe crushing injury to his leg, yet the careful surgeon may save for him a useful limb. On the other hand, the very young or old, the alcoholic, the diabetic, the syphilitic, the victim of arterio-sclerosis, after a traumatism has very feeble power for recuperation from a shattered limb—in such case, amputation is our only resort.

In extensive traumatism where we are called upon to consider immediate amputation, the case is already in profound shock. But even under the most desperate circumstances, there is a great deal which can be done in the way of preparation for such measures as may subsequently be necessary, and this preparation is too frequently neglected in the first blush of excitement. Stimulants, and especially Strychnine and Fld. Extract Ergot are factors of great importance to combat shock. A thorough lavage of patient's stomach before anaesthesia is commenced often saves trouble. Without proper preliminary treatment the case is hopeless from the beginning. Mistake is often made by leaving too much to after-treatment.

In severe traumatisms of the lower extremities, we have to deal with two

conditions which may merge the one into the other, namely, deep shock from the accident itself and in addition to this the secondary shock—i. e., the shock which is induced by the operation itself—we might call it operation shock. Dr. Crile, of Cleveland, Ohio, has shown us the way to prevent rather than to treat shock and following his lead today we are endeavoring to apply the principles laid down by him.

In injuries which have been severe enough to expose nerve trunks, an injection by hypodermic needle of 3 or 4 m. of a 4 per cent to 6 per cent solution of cocaine or novocaine into the nerve sheath before the operation is commenced is made. If this cannot be done, then cocaine or novocaine should be injected as soon as the nerve is exposed by the incision, thus doing what is called "nerve-blocking"—anaesthetizing the nerves and shutting off the impulses which otherwise would be carried to the brain and other high nerve centers. Control of hemorrhage is too apparent to need mention.

With regard to making a decision as to the point of amputation where extensive traumatism exists, the extent of injury to the skin surface should decide the question, rather than extent of injury to the muscles or bone. Sound skin covering, badly mutilated muscles and bone will make a good sightly stump—whereas, injured skin over sound muscles and bone make an unsightly stump as a final result, these bad results being caused by the infection due to the low vitality of the covering and retracting muscles, with formation of extensive scar tissue, and perhaps by a protruding bone. Such a stump is exquisitely sensitive, rendering the adjustment of an artificial limb impossible and continuing an endless source of annoyance to both patient and doctor.

In making a covering for an amputated limb, a few well defined rules should guide us. First, to provide for an abundant loose covering of skin and muscle for the stump. Fascia and muscle should be drawn together by buried sutures covering the end of the bone. In the treatment of the sawn end of the bone, there is some difference of opinion. I believe the end should be covered with a flap of periosteum, made by stripping back a cuff of periosteum to the saw line, and suturing it over the end with plain catgut suture.

Some years ago, Dr. F. T. Murphy, of Boston, made an exhaustive study of the end results of amputations of the lower extremities. His conclusions are valuable and may be worth quoting here in closing: "Anterior and posterior muscle flaps, when obtainable, are to be preferred to the circular cuff skin. The fibula should be cut at a higher level than the tibia in leg amputations, and care should be taken to level off bony prominences, such as the sharp anterior tibial edge. Suture of the periosteum and approximation of the muscles and fasciae are desirable. Drainage of the stump is advised unless the dead space is obliterated by means of buried sutures. Partial amputations of the foot or amputation at the ankle joint, except when under unusual conditions, are not as satisfactory as those above the condyles. The longer the thigh stump, the better, provided the condyles have been removed. In general, tibial amputations down to 4 inches and in thigh amputations down to 5 inches—sacrifice bone in order to obtain good muscle flaps."

These observations of Dr. Murphy are sound, and while his studies embrace amputations of the lower extremity only, in general his conclusions are applicable to the upper extremity also,

with one exception, and that is when we come to amputations of the arm, the circular cuff method is valuable and rarely leads to a painful or unsightly stump.

SURGICAL TREATMENT OF STONE IN THE BLADDER IN CHILDREN.*
*By Robert Thrift Ferguson, M. D.,
Gaffney, S. C.*

Believing that surgical treatment of stone in the bladder is the only rational treatment, and for the reason that it's occurrence in children under 2 1-2 years of age is comparatively infrequent, I have chosen this subject for a few remarks before this Society. Holt says that stone in the bladder is extremely rare in infancy but is more frequent in children from two to ten years of age. The symptoms in children vary somewhat from those in adults. There is nearly always pain upon micturition, and especially at the close of the act, which is frequently felt at the end of the penis or in the perineum. Often there is a sudden stoppage in the flow of the urine. Straining sometimes leads to rectal tenseness or prolapse. In a case of persistent prolapse an examination should invariably be made for stone in the bladder. Incontinence of urine is sometimes the only symptom and in some cases occurs only during the day.

Haematuria is frequently present and if the case is of long standing mucus and pus occurs in considerable quantity. In this connection I wish to report a case recently operated on by me at the city hospital.

A child two and a half years of age, white, male, and rather anaemic, with the following symptoms which had lasted for about one year: Frequent urination, pain, tenesmus, sudden stoppage of the stream with blood at the

end of the act, the child screaming from pain and walking around the room grabbing his penis through his clothes. Microscopical examination showed blood, pus, mucus and oxalate of lime crystals. I took him to my office and under chloroform passed a sound into his bladder and thought I felt a stone but to make sure I had the bladder x-rayed and found a shadow about the size of the end of the little finger. The child had an elongated, adherent and inflamed prepuce. The patient was put in the hospital on June 7th, 1911, and operated upon the following day when a mulberry stone as large as a hazel nut and weighing 20 grains was removed. The operation consisted of an incision one and a half inches long in the median line and just above the symphysis and a careful dissection of the tissues down to the space of Retzius, being very careful to keep below and in front of the peritoneum, thus exposing the anterior wall of the bladder. A small trocar was introduced into the bladder and the boric acid solution which had previously been injected was allowed to escape. A very small incision was then made in the bladder wall and a pair of calculus forceps introduced. The stone being imbeded in the mucous membrane at the base of the bladder, it was necessary to introduce the finger and loosen it, when it was readily extracted with the forceps. Traction sutures of catgut were placed on either side of the incision in the bladder wall to keep the bladder up into the wound. The bladder was then sutured with No. 1 plain catgut using through and through interrupted stitches. A small wick of iodoform gauze was then placed in the wound down to the line of suture in the bladder wall and the balance of the tissues closed in the usual manner with catgut. The gauze was left in for 24 hours to take care of any leakage that

*Read by Title before the South Carolina Medical Association, Columbia, S. C., April 17, 1912.

might occur from the incision in the bladder. The wound healed by primary intention and the patient left the hospital on the third day and has remained perfectly well up to this time, now more than ten months. The after treatment consisted of giving one grain of hexamethylenamine every four hours for ten days.

The suprapubic is the operation of choice in every instance in the case of young children. There is practically no hemorrhage to deal with which is a big factor by the perineal route.

Children suffering from symptoms as outlined above should have an immediate examination for stone as medical treatment is useless where a jagged stone is being tossed back and forth by the muscular contraction of the bladder which causes the delicate mucous membrane to be torn away. The most frequent variety of calculi appears to be the uric acid. Other forms are occasionally seen though all are exceedingly rare.

Every child with stone in the bladder demands operation, first, to relieve the local irritation and almost unbearable pain; second, to protect the general health, and lastly, to prevent priapism which is so frequently present in these cases, due to congestion of the vessels of the prostatic-vesical region, which causes the child to pull at the prepuce and later leads to the morbid habit of masturbation.

TREATMENT OF SOME CASES OF DISEASE IN THE POSTERIOR URETHRA.*

By Pinkney V. Mikell, M. D., Columbia, S. C.

A resume of the treatment of the diseases of the posterior urethra would take more time than one could give in a short paper like this, therefore I

will give only a few case histories, which will show how gratifying the result of treatment can be in some of these conditions.

A great proportion of the cases of gonorrhreal urethritis (by some stated as high as 80 per cent.) spread to the posterior urethra, so it stands to reason that the diseases of the posterior urethra are more common than they are thought to be. In fact, any case of urethritis continuing longer than six weeks I consider chronic and in my opinion nearly every chronic urethritis means a diseased condition of the posterior urethra.

Case No. 1.—Mr. K. Gave a history of gonorrhea two years previously. No gonococci found in secretion expressed from vesicles and prostate by massage. Prostate slightly enlarged and tender. He complained of pains in the perineum and of gradual loss of sexual power. After treating him for several weeks with massage and irrigations and finding no improvement in his condition, I examined his urethra with a Swinburne urethroscope and found the verumontanum enlarged and inflamed. At bi-weekly intervals the veru was touched with a 60 gr. to the ounce solution of nitrate of silver and after six such treatments he was discharged with a symptomatic cure.

Case No. 2.—Feb. 17 '12, Mr. J. G. D. consulted me with an acute urethritis. He had been using some patent medicine and had developed a typical penile abscess which was loaded with gonococci. The inflammation had spread to the posterior urethra and he complained of urinary distress. I drained abscess and with Santal oil internally and weak Permanganate irrigations twice daily soon had the discharge under control. At this time, March 10th, I examined prostate and many gonococci were found in the expressed secretion. Massage of pros-

*Read by Title before the South Carolina Medical Association, Columbia, S. C., April 17, 1912.

tate twice weekly followed by weak silver nit. irrigations and mixed Neisser Bacterin every fourth day soon had patient free from infection. It is an interesting fact that at the end of six weeks when about ready to discharge patient he developed a typical Hunterian chancre. Spirochaetes were found on the ulcer and the administration of Salvarsan intravenously was given before the tell-tale secondaries had time to develop.

Case No. 3.—Mr. R. Age 62. Complained of impotence which had been gradually coming on for some months. Admitted urethritis when a boy. Prostate moderately enlarged. Treatment: Prostatic massage twice weekly, followed at one visit with 1:6,000 solution of silver nitrate irrigation and at the alternate visits by full dilation with Kollman's dilator and instillation of 1 per cent. silver nitrate. After eight treatments he said he was completely relieved. He has since taken unto himself a wife.

Case No. 4.—Mr. W. consulted me complaining with frequency of urination specially marked at night. He had to get up as many as 15 times a night. Gave a history of urethritis 12 years previously with a history of rheumatism (?) at the time. He afterwards married and has several healthy children. Examination revealed an enlarged and tender prostate. And also he had a pinpoint meatus. Treatment consisted of massage of prostate and stripping vesicles and instillation of $\frac{1}{2}$ per cent. silver nitrate. The first night he only was disturbed twice during the entire night and there was marked relief from bladder irritability.

Keyes states that after 2-3 years the gonococci die out, but it was interesting to observe that this man during treatment developed a typical case of gonorrhreal rheumatism showing that

he had harbored the gonococci for at least 12 years. During his attack of arthritis he was given local treatment with instillations of Argyrol (20 per cent.) and every fourth day Neisser bacterin hypodermically. And the two treatments acted almost specifically. Two weeks after commencing the use of the Neisser bacterin he was able to leave the hospital and go home.

PITUITRIN IN LABOR.*

By J. J. Lindsay, M. D., Spartanburg,
S. C.

If there be a more important branch of medicine than obstetrics I do not know of it. If there be one that somehow seems to me more generally neglected in Society papers and discussions, I do not know of it. Occasionally we hear a paper on Puerperal Eclampsia—rarely one on sepsis, very rare indeed, for we all like to think that we never have sepsis in our own practice, though of course we may see it in consultation or hear of it in the works of other physicians. Outside of this it is once in ages that we hear any of the usual sides of this subject presented.

Now obstetrics is not a finished science, or if it is I am not a graduate. I am not a specialist on this branch but I think from hearing other men talk that I have a fairly large obstetrical work and it is not infrequent for both my patience and ingenuity to be severely taxed. To spend hour after hour listening to the woman's cries and the oft repeated, "How long will it be, doctor," to keep the family in good humor, to watch the forceps boiling and long to use them, to see your patient gradually wearing out and to be utterly worn out yourself, to say the least does not speak well for medical

* Read before the Fourth District Medical Association, Spartanburg, S. C., Nov. 18, 1912

knowledge. To be given any drug that can in any way hasten labor, an oxytoxic of efficacy and no evil after effect would be a boon that only the childbearing woman could appreciate. Latterly there has been exploited a drug or rather a solution of an organic compound an extract of the pituitary gland that claims among other properties to be a wonderfully efficient oxytoxic. Not only in those cases we meet so often where the contractions come with a given frequency but seem to lack the propulsive or expulsive power but in actual uterine inertia does it act with admirable promptness, so much so as to reduce to a minimum the number of instrumental deliveries.

None of us like forceps. I use them, I suspect, as often as any one. Last spring in looking over my records one day I found that in the first 14 labors I had attended since the first of the year, I had used forceps seven times. While that showed that forceps are easy to apply, it also showed plainly that I did not know when to use them. Since that I have a different record. But waiting, as I say, causes suffering to your patient, your reputation suffers and your religion does not become more firmly fixed. So it would be eager hands that would reach out for any promised help. This substance came into my hands in the form of a solution, each dose contained in a glass ampoule and known under the trade name Pituitrin. Since receiving it I have only had occasion to use it three times. The first was a woman in her fourth labor. I had attended her on two former occasions. In one she made a fairly quick delivery, the other was somewhat prolonged. In this case I was called after she had been suffering several hours. On examination I found the head presenting at the pelvic rim in L. O. A. position. Cervix dilated to the size of a door knob and contrac-

tions coming only at 15 minute intervals. It was 2 o'clock in the morning and she had been at work all night. I waited an hour and things were much the same. I injected Pituitrin. A pain was due in 5 minutes—it came—in 3 minutes another and in less than 30 minutes the child was delivered. A child so large that I did not weigh it as I hate to lie about a thing of this kind unless it is necessary. The first effect of the drug I noticed was that the vagina was flooded with secretions and then came the pains—strong—every one effective. The cervix dilating and drawing back over the head smoothly and uniformly. A perfect example of those ideal labors we all see sometimes and which should be the rule in all cases. The placenta was expelled without the slightest difficulty and there was no visible after ill effect.

The second case was a primipara. Was called at 9 A. M. to find she had been suffering since midnight. L. O. A. presentation again. Cervix admitting only one finger with ease. Gave morphine and ordered an enema and left, telling them to call me when needed. Was called at 3 P. M. Cervix dilated to four fingers. No headway. Patient was oedematous, had been so for three months in spite of purgatives and diuretics. Had not been in the room long when I heard that dreaded cry, "O, my head." Gave I don't know how many grains of Na. Br. and put my forceps to boiling. Then I thought of Pituitrin and at once injected it. Pains were immediately increased in frequency and power and in an hour I had the baby. Cervix dilating and withdrawing smoothly. No perineal laceration. As soon as delivery was complete—came again the headache, but not so severe and gradually lessening. No blindness. One thing in this case was that after the placenta was expelled the uterus did not contract as

one would expect in a primipara, but relaxed time and again as I would remove my hand. I gave ergot. Had it not been for the headache I would have given the second injection which I understand is the teaching now to prevent or control hemorrhage. But I did not know what effect the increased blood pressure might have on the threatened eclampsia. I invite your consideration of that point.

My third case was similar in all essential points to my first. Now then a substance that has such a prompt and potent effect can when used aright and in proper cases do away with an endless amount of pain and suffering. Used carelessly and promiscuously, indiscriminately its very power might make it an agent equally as great for evil. I must confess that I am a little afraid of it and my special reason for introducing it to the attention of this Society was that I might learn through your experience whether or not it be harmless and if not what are its contraindications.

Society Reports

Program of the third semi-annual meeting of the Second District Medical Association, held at Bamberg, S. C., Wednesday, January 8, 1913.

Meeting called to order at 11:30 a. m.

President's Address--Dr. J. S. Matthews, Denmark, S. C.

Address of Welcome--Dr. J. B. Black, Bamberg, S. C.

Response--Dr. T. H. Dreher, St. Matthews, S. C.

Paper, Eye, Ear and Throat Disease in Their Relation to General Diseases--Dr. E. F. Parker, Charleston, S. C.

Paper--Dr. LeGrand Guerry, Columbia, S. C.

Paper--Dr. Thos. D. Coleman, Augusta, Ga.

Paper, Some General Considerations to be Observed in Amputation of the Extremities--Dr. Chas. M. Rees, Charleston, S. C.

Paper--Dr. T. H. Dreher, St. Matthews, S. C.

Paper, Status Quo of Medical Ethics--Backward or Forward!--Dr. V. W. Brabham, Cope, S. C.

2:30 p. m.--Dinner at Johnson Hotel.

4:00 p. m.--Public Meeting in High School Auditorium.

Address, Medical Inspection of Schools--Dr. Wm. Weston, Columbia, S. C.

Address, Sanitation--Dr. Adams Haynes, Columbia, S. C.

CHARLESTON COUNTY MEDICAL SOCIETY.

The Medical Society of South Carolina (Charleston County) held a meeting Jan. 1, 1913, at 9 p. m. Several business and legislative matters were first disposed of. Then the regular scientific program was gone into.

Dr. H. S. Mustard read an essay entitled "Acidosis. With Special Reference to the Acetone Bodies." He gave a brief history of the changes in the food-stuffs after their ingestion and then went into the theories of acidosis. Next he took up the clinical findings and mentioned the common diseases in which we find this condition. Recently there has been considerable literature in the journals along this line, and of these, Dr. Mustard gave a resume. The essentials of the treatment he advised, is to prevent carbohydrate starvation and to give alkalies.

Dr. Robt. Wilson stated that Dr. Mustard had given a lucid paper on a very complex subject. He then cited two cases of hyperemesis gravidarum due to acidosis brought on by starvation. The second case was cured by careful feeding and went to term.

Drs. Jagar, Maguire and Pollitzer discussed the paper from different viewpoints.

Dr. Smith asked what experimental work had been done by injecting diacetic acid.

Dr. Mullally added that the subject interested him from its bearing on diabetes and on pregnancy. He objected to the theory that acidosis is a factor in eclampsia.

Dr. Mustard replied to the discussion and in regard to experimental work, stated that injection of diacetic acid caused such varied symptoms that it had not proven anything. He again emphasized the fact that acidosis is a condition and not a disease.

The hour being late, medical news was dispensed with and the Society adjourned.

The Medical Society of S. C. held a meeting at its hall Jan. 15, 1913.

Dr. D. L. Maguire read an interesting paper entitled, "Chronic Gastric Dilatation and Treatment by Gastro-Enterostomy." He first discussed the etiology, stating that most often the exciting cause is some obstruction which is generally at the pylorus. Then the essayist took up the pathology and clinical history and diagnosis. After discussing the various remedial agents, he urged that the above operation should be resorted to in cases unresponsive to other forms of treatment.

Dr. Maguire then reported the following case: Colored female, age 53. Patient has had 11 children. Three years ago pain and eructations were noticed after eating. Vomiting followed and became profuse. Abdomen enlarged while she became emaciated. In vomit were particles of food eaten day before. On palpation splash was present 7 hours after meal. Dr. Maguire used drugs and stomach washings for one month—then as she became worse,

he did a gastro-enterostomy. The diagnosis before the laparotomy hung between Hirschsprung's disease and chronic dilated stomach. On operating the stomach was found to be very dilated and a growth present at the pylorus. He did a post gastro-enterostomy. The patient since then, over a year ago, has improved and has had no recurrence of vomiting or pain.

Dr. C. M. Rees in discussing the paper stated that he has done four gastric anastomoses but in three cases the results were disappointing. Today gastro-enterostomy is not viewed with as much favor as previously.

Dr. Pollitzer spoke of recent aid in gastric studies afforded by Bismuth and the x-ray, and then touched on the analogy of cardiae and gastric compensation.

Dr. Buist called attention to chronic gastric dilatation being more frequent in women than men, the reason being that often pyloric obstruction is secondary to dilatation and this is due frequently to ptosis. Ptosis occurs in virgins because of corset pressure and in matrons who have borne many children. Where ptosis is present, a gastropexy should be done, but if obstruction is the cause, then a gastro-enterostomy is indicated.

Dr. Cornell stated that he had recently seen three cases of congenital stenosis. The chief diagnostic points were projectile vomiting and stomach waves.

Dr. Nathan spoke of a stomach case operated on several years ago which was considered to be malignant. Though the stomach was removed, the patient recovered and is today well.

Dr. Buist in reply said that he remembered the case referred to; that the condition was syphilitic and not cancerous as was diagnosed at the time of operation. A secondary nodule in the liver was the source of error.

Dr. G. F. McGinnes remarked that the average x-ray picture shows the normal stomach to be situated rather differently from its classic position. He also referred to x-ray and Bismuth tests for gastric motility.

Dr. Sosnowski spoke of gastric spasms and conditions due to trouble elsewhere in abdomen. He also referred to inflammatory conditions in the pancreas and duodenum, causing a mechanical stenosis, which results in chronic dilatation.

Dr. Maguire then replied to some queries and expanded on one or two points.

Under medical news, Dr. Maguire reported a case of myelitis following puerperal sepsis.

Dr. Townsend reported the case of a patient who was struck over the mastoid. This caused dizziness and deafness in both ears.

Dr. Mustard cited a case of probable angio-neurotic edema in a nervous girl of 13. First, the tissue under the eyes began to swell then followed the hands and feet. Heart and urine are normal. Fever is present. No one volunteered any explanation.

Dr. Smith stated that recently while performing an autopsy, he had found a pseudo hour-glass stomach. There was no stricture but the two extremities were greatly dilated.

The Society then adjourned.

R. M. POLLITZER, Cor. Sec.

ORANGEBURG-CALHOUN MEDICAL SOCIETY.

On January 23rd the Orangeburg-Calhoun Medical Society held its annual meeting at Orangeburg. There was a full attendance. New resolutions were made about the coming year and we decided to take up the program for the society meetings which is published in the *Journal* of the American Medical Association.

The meetings for this year will be held only quarterly. Our Councillor, Dr. R. A. Gyles, met with us and gave us a very encouraging talk. A fine spirit prevailed.

After a very excellent dinner, which was served at the St. Joe Hotel, we went home determined to work faithfully for the upbuilding of our Society.

SOPHIA BRUNSON, Sec'y.

OCONEE COUNTY MEDICAL SOCIETY.

The Oconee County Medical Society met at Seneca, Jan. 17, 1913. Our District Councillor, Dr. C. B. Earle, visited our Society at this meeting. He had no set speech or paper but entered into the broad field of the usefulness or benefit of the County Medical Society. Dr. Earle is an able speaker and our Society appreciated fully the need and importance of his discourse.

Dr. E. A. Hines introduced the subject of Medical Economics. This created a good deal of interest and was freely discussed by the different members of the Society.

Election of officers:

Dr. J. Henry Johns, President, Westminster, S. C.

Dr. C. W. Smith, Vice-President, Newry, S. C.

Dr. W. A. Strickland, Secretary and Treasurer, Westminster, S. C.

Dr. J. S. Stribling, Delegate, Seneca, S. C.

Dr. E. C. Doyle, Censor, Seneca, S. C.

Society adjourned.

W. A. STRICKLAND, Sec.-Treas

SPARTANBURG COUNTY MEDICAL SOCIETY.

The Spartanburg County Medical Society held an excellent meeting, the attendance being unusually large, due no doubt to the fact that Dr. Hines met with the Society.

Dr. Hines read a very able paper.

one of the best the Society has ever had the pleasure of listening to.

Dr. Steedly read a paper on "The Anatomy and Physiology of the Brain and Nervous System," which he illustrated by means of excellent charts.

The Society decided to raise the membership dues to five dollars a year, the former sum of four dollars having been found inadequate.

The President, Dr. W. H. Chapman, appointed the following members to serve as the Committee on Public Health and Legislation: Drs. J. L. Jeffries, L. Rosa H. Gantt and J. H. Allen.

THE QUARTERLY PROGRAM.

January 31, 1913.

Address—E. A. Hines, M. D.

The Anatomy and Physiology of the Nervous System—B. B. Steedly, M. D.

Discussion—D. L. Smith, M. D.

February 28, 1913.

Address—Curran B. Earle, M. D.

Diabetes—W. W. Boyd, M. D.

Discussion—G. A. Bunch, M. D.

March 28, 1913.

Achylia Gastrica—Baxter Haynes, M. D.

Discussion—J. H. Allen, M. D.

Subject Unannounced — Geo. E. Thompson, M. D.

Discussion—W. W. Painter, M. D.

L. ROSA H. GANTT, Sec.

From the Lay Press

HOOKWORM CAMPAIGN IS NOW UNDER WAY—DR. HOWELL PLEASED WITH INTEREST TAKEN BY THE PEOPLE.

Herald, Jan. 15.

Dr. J. T. Howell, the bookworm expert, opened his campaign in York county Tuesday and the interest taken was so great that he was unable to make an examination of all specimens brought to his office. Dr. Howell went up to Fort Mill this morning and is

spending the day there. Thursday he will be at Hickory Grove, on Friday at Clover and Saturday at Yorkville.

CHESTER DOCTORS MEET—OFFICERS ELECTED.

State, Feb. 6.

Chester, Feb. 5.—The regular monthly meeting of the Chester County Medical Association was held Monday evening and the annual election of officers for the ensuing year was held and resulted as follows: Dr. W. M. Love, President; Dr. C. E. Crosby, Vice-President, and Dr. J. G. Johnston, Secretary and Treasurer. Dr. H. E. McConnell was elected a delegate to the State Medical Association that meets in Rock Hill in April, Dr. A. M. Wyllie, alternate.

The Association went on record as being in favor of school medical inspection, also an increased appropriation for the State Board of Health.

A committee composed of Dr. S. G. Miller, chairman; Dr. W. R. Wallace, and Dr. J. G. Johnston, was appointed to co-operate with the Civic League in its efforts to make the city more beautiful, sanitary and healthy.

A strong program has been arranged for the meeting in March. Drs. Miller, Hennies and McConnell will read papers. There will be other interesting discussions.

DOCTORS CHOOSE OFFICERS.

Columbia State.

Florence, Jan. 19.—The Florence County Medical Association recently met in the Florence Infirmary parlors and elected Dr. G. D. Rollins President; S. R. Lucas, Vice-President; F. K. Rhodes, Secretary and Treasurer. The delegates to the State Convention in Rock Hill are Drs. W. H. Woods and C. D. Rollins. At the next meeting Dr. McLeod will entertain all of the doctors at the enlarged infirmary

and they are looking forward to the meeting with a great deal of interest.

OF INTEREST TO PHYSICIANS—SENATOR HOUGH'S BILL WOULD REMOVE INSURANCE EXAMINATION LICENSE.

Mrs and Courier.

Columbia, Jan. 29.—Special: Senator W. R. Hough, of Kershaw County, has prepared a bill which was introduced tonight, which provides for the removal of any additional license tax upon practicing physicians of this State who make medical examinations for life insurance companies.

During 1912 Insurance Commissioner McMaster construed a paragraph of Section 2712, of the Civil Code, under which medical examiners were deemed agents of life insurance companies. His opinion was approved by Attorney General Lyon. Those familiar with legislation along insurance matters hold that it was intended that examiners of fire risks were to be licensed agents and not regular physicians already licensed by the State Board of Medical Examiners.

The physicians have been required to pay a fine of 50 cents for each life insurance company for which they made medical examinations. Physicians who were examiners for several companies thereby paid a heavy license.

Senator Hough's bill would remove the necessity of physicians taking out such additional licenses and this bill will be watched with much interest by the physicians of South Carolina, who will urge its passage.

WAGING WAR ON HOOKWORM—DR. ROUTH CONDUCTING VIGOROUS CAMPAIGN AGAINST "NECATOR AMERICANUS" IN LAURENS COUNTY.

Columbia State.

Laurens, Jan. 24.—Dr. F. M. Routh, of the State Board of Health, is conducting a hookworm campaign in Lau-

rens county. Five stations have been established for the convenience of the public. Dr. Routh, working in conjunction with local physicians, spends one day at each of the points where dispensaries have been located, and in addition to making examinations of all patients, he visits the surrounding schools and lectures on the subject of hookworm treatment, its causes and effects. The campaign will continue six weeks. The five stations selected and the days set apart for visits and examinations are: Gray Court, every Tuesday; Clinton, every Wednesday; Cross Hill, every Thursday; Tumbling Shoals, every Friday; Court House, every Saturday.

Laurens county, through the board of county commissioners, made an appropriation to supplement the cost of carrying on the county investigation by the specialists.

WORK FOR AIKEN HOSPITAL—WOMEN OF THE AIKEN COUNTY HOSPITAL ARE BUSY SECURING FUNDS.

Columbia State.

Aiken, Jan. 24.—The women of the Aiken County Hospital Association have during the past three or four months raised more than \$500 toward swelling the fund for the erection in Aiken of a modern and thoroughly equipped hospital, which is recognized to be Aiken's greatest and most urgent need. A year or so ago Mrs. C. Oliver Iselin, of New York and Aiken, agreed to give \$10,000 for a hospital provided the people of Aiken raise a like sum here at home, thus giving the hospital \$20,000 as a start; then Mrs. Iselin agreed to give \$5,000 a year thereafter for five years for maintenance. The Aiken Relief Society has raised a considerable sum for a hospital, and interest in the work of increasing the fund and securing the money so liberally offered by Mrs. Ise-

lin for this purpose has been keyed to a high pitch by the activity of the women who recently organized the County Hospital Association.

DR. J. E. MASSEY, HONORED CITIZEN,
HAS PASSED AWAY—AFTER LONG
ILLNESS PROMINENT PHYSICIAN DIED
AT HIS HOME.

Herald, Jan. 20.

Expressions of sorrow and regret are heard on all sides in regard to the death of Dr. J. E. Massey, Sr., which occurred this morning at 10 o'clock at the home of his daughter, Mrs. Julian S. Starr. An aggravated form of heart trouble was the cause of death, his condition being considered serious since a fall on Main street sustained about two months ago. Though tenderly ministered to by physicians and loved ones, he gradually grew weaker, the end coming this morning, as stated.

Dr. Massey was an honored citizen and beloved physician of Rock Hill, where he has lived since 1890, and practiced his profession continuously except for a year spent on his plantation in the Waxhaw neighborhood. He gave up active work only a short time ago.

As a public servant he was held in the highest esteem, having been a member of the Legislature and of the city council. A member of the Presbyterian church, he was a Christian gentleman of the highest type.

Dr. Massey was 64 years of age, having been born in Kershaw county, Jan. 26, 1849, the son of the late B. H. Massey, of Lancaster county, and Nancy Catherine (Haile) Massey, the latter of whom died only about six weeks ago and of whose death he was too ill to be told. He graduated in medicine at the University of Maryland, Baltimore, in 1872. He was twice married; first to Miss Alice Massey, of Lancaster county. Of this union three chil-

dren survive, Dr. J. E. Massey, Jr., and Mrs. J. S. Starr, of this city, and Mrs. Eugene Dewstoe, of Atlanta. His second wife, who died two years ago, was Miss Manassas Withers, of Fort Mill. Two children of this union survive, Miss Kathleen Massey and Mr. Withers Massey, of this city.

Besides these there are left to mourn his loss the following brothers and sisters: Messrs. B. F. and L. J. Massey, of Fort Mill; W. T. Massey, of Tampa, Fla.; Mesdames J. W. Ardery, J. M. Spratt and T. S. Kirkpatrick, of Fort Mill.

Funeral services will be held at 3 o'clock tomorrow afternoon at the residence of Mr. and Mrs. J. S. Starr, 307 Wilson street. Interment will be made in Laurelwood, with Masonic honors, Dr. Massey having been a member of Rock Hill Lodge No. 111.

The physicians of the city will serve as honorary pallbearers, the active ones being six nephews of the deceased, Messrs. Tom and Lee Spratt and Lad Massey, of Fort Mill; B. F. and Burton Massey and W. M. Dunlap, of this city.

DOCTORS MEET AT BATESBURG—PHYSICIANS OF FOUR COUNTIES GATHER FOR REGULAR SESSION—INTERESTING TALKS ARE MADE.

Columbia State.

Batesburg, Jan. 17.—The Eighth District Medical Association met in the offices of Drs. W. P. and R. H. Timmerman, Jan. 15, at 11 o'clock. This district is composed of the counties of Aiken, Edgefield, Lexington and Saluda, all of which were well represented at the meeting.

Dr. D. B. Frontis, of Ridge Spring, is President; Dr. Robt. A. Marsh, of Edgefield, Secretary; Dr. W. P. Timmerman, of Batesburg, Councillor. Interesting clinics were exhibited by Drs. R. H. and W. P. Timmerman and W.

S. Kneece, Dr. R. H. Timmerman, of Batesburg, read a paper on signs of pregnancy, Dr. D. M. Crosson, of Leesville, on iectums; Dr. T. G. Croft, of Aiken, on diabetes; Dr. Filmore Moore, of Aiken, on hygiene and sanitation; Dr. A. S. Ballenger, of Monetta, on uraemia; Dr. T. A. Quattlebaum, of Columbia, "A Plea for Children." Dr. A. B. Knowlton's paper on cystoscopy was read by Dr. Edythe Welbourne, of Columbia. The clinics and papers were freely discussed. All were of a high order and some strictly original.

Dinner was served at the Batesburg hotel.

After dinner talks were made by Dr. Hammond, of Montmorenci, Dr. Crosson, of Leesville, Prof. T. M. Seawell, of Batesburg, Rev. S. P. Koon, of Sumnerland College, Dr. Edythe Welbourne, of Columbia, Dr. Connor, of Saluda, Dr. T. G. Croft, of Aiken, Dr. E. P. Taylor, of Batesburg, and Ira C. Carson, of Batesburg. At the dinner telegrams and letters extending greetings from some of those who could not attend, were read.

Dr. J. W. Geiger, of Brookland, who is now 81 years old, was elected an honorary member of the Association. The following were chosen to represent the district association before the legislature in regard to various matters: Dr. D. M. Crosson, Dr. Harry H. Wyman, Dr. J. D. Waters, Dr. R. A. Marsh. The next meeting of the association will be in Aiken in July.

The Lexington County Medical Association, of which Dr. R. H. Timmerman is chairman, and Dr. W. T. Gibson, acting secretary, had a short meeting but adjourned in order to attend the district meeting. Dr. G. F. Roberts, of Lexington, was elected delegate to the State Medical Association. The next meeting will be at Lexington.

NEW KNOWLTON HOSPITAL OPENED TO THE PUBLIC.

The State, Jan. 24.

The new Knowlton Hospital on Marion street, which more than doubles the size and capacity of the old building to which it is annexed, was formally opened last evening with a brilliant reception attended by hundreds of Columbians and quite a number of out-of-town people, including physicians from several towns in the State and former patients of the institution. The entire building was open and visitors, under the guidance of uniformed nurses, had the privilege of inspecting from basement to roof as handsomely and adequately equipped a hospital as there is probably in the South. For this opening reception beautiful decorations added to the attractive appearance of the place, palms being effectively used in the halls and a wealth of flowers—hyacinths, narcissus and other hot house blossoms—banking the wide window shelves in the reception room and on the stair landings, filling the whole atmosphere with perfume and enhancing the general air of freshness and newness.

BRILLIANT SOCIAL FUNCTION.

Dr. and Mrs. Knowlton received the guests, assisted by the staff physicians and their wives, the resident physician, Dr. Edythe Welbourne; the superintendent, Miss J. C. Rawl, and several of Dr. and Mrs. Knowlton's relatives. Punch was served in the reception room from a great cut glass bowl beneath the smilax decorated chandelier, and in the nurses' dining room in the basement floor ices and sweets were served, the table being arranged for a beautiful private reception, with tall vases of crimson carnations, hot house smilax, colonial silver candelabra with silken and silver shades.

Invitations had been issued and the reception was given the nature of a

brilliant social affair, one of the largest which has taken place in Columbia in many a long day.

The new hospital is of red pressed brick with white Ionic columns and trimmings of Indiana limestone, the general style conforming to yet varying decidedly from the old building with which it is connected with a covered way at the rear. The interior is very handsome and attractive in its plan and decorative scheme. On each floor is a large reception hall, which gives a pleasing effect of openness and roominess. The walls are all white, the wood work is of mahogany and the floors throughout are of hardwood oak, trimmed with mahogany. The rooms are furnished handsomely but simply in dull mahogany, each set of furniture being of different design, and the white enamel beds having a special convenience in a low cot for nurses which fits in underneath and can be "packed away" out of sight and out of the way in the day. Each room has its private china—a beautiful individual set of Haviland on a porcelain tray, and for some there are individual coffee and tea services of silver. On each of the bedside tables there is a pretty brass electric lamp conveniently shaded, and a handsomely bound Bible, the Bibles being a memoriam to Dr. Knowlton's mother, Mrs. Emma Taber Knowlton.

There is also a room in the hospital dedicated to Dr. Knowlton's mother and in this room were flowers sent by the pupils of the Sunday School of the Washington Street Methodist church.

Twelve of the rooms have private baths, beautifully appointed, and every room in the hospital has an inviting air of comfort, good taste and simplicity. There are 50 rooms in the new building.

There is not a bell in the building. All the signals and calls are made by a system of lights, each floor having a

different color. The patient merely presses a button and the light summons the nurse, no matter where she is.

PLAN OF EACH FLOOR.

On the first floor there is a large reception hall, the reception room, Dr. Knowlton's private offices, the superintendent's office and a number of patients' rooms. Private rooms take up the entire second floor, while on the third, together with more rooms for patients, are the suite of operating rooms, a special feature of the new plant, the bacteriological and pathological laboratories. The suite of operating rooms consists of one for minor surgical cases, a sterilizing room, an anaesthetizing room and the major operating room which, in its equipment and arrangements, answers all the demands and wishes of modern surgical science.

On each floor there are broad piazzas with southern and western exposures, each having a chute for trash and one for soiled clothes. There is also on each floor a diet kitchen equipped with all the necessary culinary arrangements, with a dumb waiter, a telephone and speaking tube.

THE X-RAY LABORATORY.

On the basement floor are the culinary department, pantries, nurses' dining room, linen closets and the x-ray laboratories, another of the most modern and valuable departments of the new hospital.

From a standpoint of science and of sanitation the Knowlton hospital is as up-to-date as it could be made, and the throngs of visitors of last evening were enthusiastic in their expressions of admiration and interest.

THE STAFF.

The staff of the Knowlton Hospital is as follows:

General Surgery, Dr. A. B. Knowlton.

Resident Physician and Anaesthetist,

DEC - 6 1916

CATALOGUED

Dr. Edythe Welbourne.

Consultation, Dr. T. M. DuBose, M.D.

J. H. McIntosh, Dr. W. M. Lester.

Director X-Ray Laboratory, Dr. R. W. Gibbes.

Genito-Urinary Diseases, Dr. P. V. Mikell.

Eye, Ear, Nose and Throat, Dr. Henry Horlbeck, Dr. Robt. L. Moore.

Diseases of Stomach, Dr. F. M. Durham.

Pathology and Bacteriology, Dr. H. M. Smith.

Diseases of Children, Dr. Wm. Weston.

Obstetrics, Dr. Lindsay Peters.

Orthopoedic Surgery, Dr. J. H. Taylor.

Diseases of Nervous System, Dr. Jas. A. Poore.

Practice of Medicine, Dr. M. M. Rice, Dr. W. A. Boyd, Dr. T. M. DuBose, Jr., Dr. R. G. Blackburn, Dr. D. S. Black.

Serum Therapy, Dr. C. W. Barron, Dr. Wm. R. Barron.

Diseases of Heart and Lungs, Dr. C. F. Williams.

Superintendent, Miss J. C. Rawl.

Current Medical Literature

FRIEDMANN'S CURE FOR TUBERCULOSIS.

Recently things have sifted to us through the lay press of the discovery of a new cure for tuberculosis by Dr. Friedmann, of Berlin. Confirmation of this report in the medical press is now at hand. The *Berliner Klinische Wochenschrift* of November 18, 1912, contains the original paper as read by Friedmann before the Berliner Medizinscher Gesellschaft; also the verbatim report of the full and lively discussion which followed his address.

Friedmann's short article is merely an outline of his method and results, the complete and detail report is promised for later publication. The short summary, and especially the discussion of the apparently unprejudiced observers who had been privileged to administer the remedy themselves, leave us with the impression that a discovery of profound import has been made. We feel it therefore a distinct duty to outline Friedmann's work to our readers.

Like most investigators who have sought vaccines for bacterial infections, Friedmann came to the conviction that the most potent curative and immunizing powers lie in the living bacterial organism itself, and not in the dead organism as used in the method of Wright and his school. Furthermore it is obvious that such a living vaccine must be avirulent. After many years of observation and experiment, Friedmann finally obtained a stock of tubercle bacilli, which by repeated culture and passage through animals became entirely avirulent for the human organism. Under pressure, Friedmann admitted in the discussion that his bacillus was derived from one of the cold-blooded animals, the turtle.

After demonstrating by injections into animals and even into himself that living vaccines derived from this bacillus were entirely harmless, he began to inject these vaccines into patients afflicted with various forms of tuberculosis. After trying various ways of injection, Friedmann finally concluded that the best results were obtained by what he calls: "Simultaneous injection"—i. e., one dose injected directly into the veins at the elbow, the other intramuscularly. The intravenous injection is not followed by any local manifestation, but the intramuscular injection, *in favorable cases*, is followed by a local induration which slowly

disappears. These injections are repeated at intervals of a few weeks, as many as half a dozen being sometimes administered. In advanced cases of tuberculosis, the induration disappears rapidly. Such a rapid disappearance is regarded by Friedmann as an unfavorable omen.

The remedy has now been used by Friedmann and his workers the past year or two in 1,182 cases of pulmonary and surgical tuberculosis. Friedmann offers no statistics, he merely states that after one, two or more injections, all cases of tuberculosis, except those far advanced are completely cured. As proof of his claims, he merely contented himself by presenting in the course of his address a number of cured cases, the recital of which is highly impressive. For instance he reports a case of knee tuberculosis in the advanced stage, with fungous granulations and six deep fistulae, completely healed after two injections. He showed cases of laryngeal tuberculosis completely healed after three injections. He demonstrated various other cases of tuberculosis of the lungs, genito-urinary tract, lymphatic system, eye, skin, etc.; many cured; all favorably influenced.

It is only a short step from cure to immunization, and Friedmann has already started on this problem on an extensive scale. He has thus far vaccinated 335 children, ranging from the newly born to the age of three years. Most of these children had tuberculous surroundings, and although some of the children were injected over a year ago, in not one has tuberculosis developed. Manifestly, no definite conclusion can be drawn from this as to the immunizing power of Friedmann's remedy. One thing was surely demonstrated by these observations, both of Friedmann and his co-workers, namely, that the injection of the avirulent living bacilli was entirely harmless.

Friedmann's address is naturally tinged by copious optimism and enthusiasm and affords very little opportunity for a well balanced judgment of his work. That is why we followed the discussion of his paper with perhaps greater interest than his original thesis. The expressions of those who took part in the discussion may be grouped in four classes: first, the enthusiastic; second, praising with reservations; third, mildly critical; fourth, expectantly conservative. It is interesting to note that, with one or two exceptions, those who praised the remedy were those who had actually used it. No one deliberately said that the remedy was of no avail. The largest part of the criticism came from the laboratory workers, such as Citron. These directed their main attacks upon, what to us seems the weakest part of the exposition, the admission by Friedmann that animals immunized by his vaccine did not recover, as was to be expected, although they lived more than twice as long as those that were not immunized. Others criticized Friedmann, some rather bitterly, because he refused to divulge the details of his remedy and his methods. To our minds Friedmann was fully justified in his course. Had he reserved the remedy to his own use the case would be different. He freely gave the remedy, however, to a large number of clinicians in Berlin. We need only think of the possibilities of injudicious preparation and administration by both well-meaning and unprincipled persons to appreciate that Friedmann is perfectly right in keeping the secret to himself until his method is put on a surer footing. Ehrlich keeps the preparation of Salvarsan a secret, but we have heard of no criticism of his action. At all events, Friedmann promises a detailed publication in the near future.

Our own impression from the entire

debate is that Friedmann has enunciated a principle of far-reaching consequence and has probably discovered a remedy that influences tuberculosis favorably. The probability is also very strong that Friedmann claims too much. We confess that to us the tone of Friedmann's remarks, both in his address and in his discussion, was somewhat disappointing in its cock-sureness. He seems to lack the poise and self-criticism of an investigator carrying a large message. We feel sure that his words would carry more weight had he been more temperate. Despite this, his address has impressed us as no medical discovery made in the past year has done.—E. M.—Editorial, *American Journal Surgery*, Feb. 1913.

THE BUSINESS OF MEDICINE.

The medical profession is altogether too altruistic, at times. We do not assail the dictum of ethics which places the evolutionary ideas of the profession at the service of the people, even when it reaches the public through the cash registers of the manufacturer and the druggists as beneficiaries in chief. We have no animadversions to offer upon the spirit which orders the discovery of the physician to be patented by someone else, lest the glory and revenue might in some way discount the usefulness of the discoverer.

The medical profession, more than this, is a victim of the ordinary economics of society, and presumably the doctor has no business with business. All of the easy mark mining stock or get-rich-easy promoters have a preferred list of victims in the medical guild and their collection of pretty lithographs of useless stock certificates would fill a large public dumpcart, but there are no compensations. Even the legitimate subject of the doctor's interest in life, the patient, looks upon the physician as a necessary evil, employed

in exigency and paid when expedient or, more often, not paid at all.

To begin with, the doctor spends half his time in the service of those who cannot pay, and it is poor business that he should have to spend any part of the other half of his time on those who can but who do not want to pay.

If the doctor waits long enough (but not too long), he may, it is true, have a sort of vendor's lien on the estate of a departed client, sharing in this deferred requital with the necessitous undertaker and the predilected attorney, if these latter two leave anything for the doctor.

There is a rift in the clouds, however, and the time is near when the doctors themselves will look after the business of their occupation. On this point we read with some interest that one of the Western States has proposed to inaugurate among the local societies of medical men a sort of intelligence bureau, through a committee which shall make regular lists of the non-paying patients, in order that the members of the profession may be safeguarded, in this much, that they will at least know whether a patient is in the habit of paying the doctor, before the case is undertaken.

If this suggestion becomes general practice it will serve a good purpose and may lead to the next need of the profession, namely, a collection bureau composed of representatives of the profession itself, to which all known bad debtors may be reported. Such a bureau could do far more in justifying bad accounts than the usual collection agencies or lawyers can, for the whole business would change from a purely business proposition to one of economics, based upon the element of pride first and upon the second, no less important, question of service, for the gradual refusal to treat systematic dead beats would be a natural and inevit-

able result.

From the earliest period of the practice of medicine until now, the doctor has been the natural prey of the whilom patient and there has been a false sense of *noblesse oblige* on the part of physicians which has compelled silence as to the abuse of them by their clientage. In these days of utilitarian practice, however, this must change and with the struggle for existence, in the clarity of better living, the parasites should be shown up and made to bear their natural share in the burden of community expense, and if there is no popular way to bring this end about, then the medical profession must arrive at its own plan. After a while we can have on every doctor's table a regular Bradstreet of local information, so far as medical practice is concerned, and the victimization of a long-suffering profession will cease.—Editorial, *N. O. Medical and Surgical Journal*, Feb. 1913.

FRAUDULENT DISINFECTANTS.

The State Hygienic Laboratory has done an excellent work in the investigation of certain alleged disinfectants which are advertised to have extraordinary powers as germ-killers and so are sold to the public; whereas they are in truth and in fact, worthless as such. Dr. Wilbur A. Sawyer, in the Bulletin of the California State Board of Health for November 1912, has an excellent article on this subject. Samples of several disinfectants were tested for the State Board of Control with, in comparison with the claims made for them, remarkable results. In one case the label claimed that "a constant dripping of this oil into the bowls of closets or urinals would disinfect them and would also diffuse a pleasant odor which would kill contagious germs in the air such as tuberculosis and all kinds of fever;" "Examination of

the oil showed that dried typhoid bacilli could be soaked in it for at least sixteen hours and would remain alive." And it is for stuff sold by and because of such false and fraudulent claims that people are not only paying their good money, but doubtless in many cases they are placing a false reliance of protection in something that is worthless.—Editorial, *California State Journal*, Feb. 1913.

INTESTINAL STASIS.

The paper on intestinal stasis read by Mr. Arbuthnot Lane at the Congress of Clinical Surgery held recently in New York has given an impetus to the consideration of the subject. Probably there are as many cases of indigestion in this country as anywhere in the world and probably, too, a large number of these are due to intestinal stasis. The arrest of normal peristaltic movements is responsible for many complaints and may be the starting point of some grave diseases. The commencing symptoms are dyspepsia and constipation, and in course of time the whole system becomes poisoned by the toxins thrown off by putrefying food, and the sufferer bids fair to sink from asthenia and emaciation. A notable feature of this condition, referred to by Dr. Leslie Murray in the *Medical Press and Circular*, Dec. 25, 1912, is the enormous preponderance of cases occurring in the female sex, and another somewhat remarkable point is that it is frequently associated with enteroptosis. Leslie, although at one time sceptical, is now thoroughly in agreement with Lane as to the presence and significance of the various adhesions and kinks described by the latter, and also believes that the short circuiting operation is the most certain and effectual mode of relieving the condition.

While short circuiting may seem heroic treatment even for obstinate

constipation, the author holds that it is safe and effective. He thinks, therefore, that it is better to have recourse to this radical treatment for intestinal stasis than to leave the patient in a miserable state of suffering and chronic invalidism rendering life almost insupportable and so lowering the resistive power of the tissues, owing to the effects of autointoxication, as frequently to endanger the life of the individual from intercurrent diseases, such as pneumonia.—Editorial, *Medical Record*, Feb. 8, '13.

Book Review

Golden Rules of Surgery. Especially Intended for Students, General Practitioners and Beginners in Surgery. By Augustus Charles Bernays, A. M., M. D., Hdibg., M. C. R. S., Eug. Life Member of the German Society for Surgeons of Berlin; Chief Surgeon Lutheran Hospital, and for Twenty Years Professor of Anatomy and Surgery in St. Louis, Mo. Second Edition Revised and Rewritten. By William Thomas Coughlin, M. D., Assistant Professor of Surgery, Chief of Clinic, St. Louis University Medical School, St. Louis, Mo. St. Louis: C. V. Mosby Company, 1913. Price \$2.25.

The entire absorption of a large first edition of the Golden Rules of Surgery made necessary the issue of the present one. Its enlargement and elaboration by the junior author has made it possible to cover the entire field of surgery in a thorough and systematic manner, at the same time preserving the character and charming style that made the first edition of this book popular.

In reviewing this volume, one is struck with the force of each statement, showing that the authors have weighed well the idea to be conveyed and have striven to represent the thought to the reader in a convincing manner.

Dr. Bernays left an enviable impress on American surgery. He was a deep thinker and an original writer. The work has been brought up-to-date by Dr. Coughlin.

The book is dedicated to Dr. Charles H Mayo.

E. Merck's Annual Report of Recent Advances in Pharmaceutical Chemistry and Therapeutics. 1911, Volume 25. E. Merck Chemical Works, Darmstadt, 1912.

This is an exhaustive report which has been coming out with considerable regularity for forty years in one form or another. There is an enormous amount of information in its pages.

* * *

The Practical Medicine Series. Comprising Ten Volumes on the Year's Progress in Medicine and Surgery. Under the General Editorial Charge of Gustavus P. Head, M. D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Charles L. Mix, A. M., M. D., Professor of Physical Diagnosis in the Northwestern University Medical School. Volume 10. Price \$1.25. **Nervous and Mental Diseases.** Edited by Hugh T. Patrick, M.D., Professor of Neurology in the Chicago Polyclinic; Clinical Professor of Nervous Diseases in the Northwestern University Medical School; Ex-President Chicago Neurological Society. Peter Bassoe, M. D., Assistant Professor of Nervous and Mental Diseases, Rush Medical College. Series 1912. Chicago: The Year Book Publishers, 180 N. Dearborn St.

Diseases of the Brain and Nervous Systems have suffered much from Empiricism in the past, but gradually the searchlight of science has cleared up many dark places in the diagnosis and treatment of these diseases. The volume under review contributes admirably to this end.

* * *

Surgical Clinics of John B. Murphy, M. D. At Mercy Hospital, Chicago. Volume 1, Number 6 (December). Octavo of 153 Pages, Illustrated. Philadelphia and London: W. B. Saunders & Company, 1912. Published Bi-Monthly. Price per year: Paper, \$8.00; cloth, \$12.

These stenographic reports of a justly celebrated clinic continue to expand and excite our interest. This volume has two sections we were especially pleased with, viz: Treatment of Malignant Tumors with Radioactive substances by Caan of Heidelberg; and Pelvic Infections by Dr. Murphy. The whole list of subjects follow:

Carcinoma of the Breast (with a talk by Professor R. Bastianelli, of Rome Italy); Invaginations in the Treatment of Malignant Tumors with Radio-Active substances (by Albert Caan, M. D.); Salpingitis—Pelvic Infections; Metastatic Gonorrhœal Arthritis of the knee; Ankylosis of Elbow—Arthroplasty; Fractures of the Patella; United Fracture of Femur; Fracture of the Internal Semilunar Cartilage; Splitting Fracture of the Anterior Half of the Lower End of the Tibia; United Fracture of Humerus; Tenoplasty for Obstetric Palsy; Ankylosis of the Temporomaxillary Joints; Comments on Cases Previously Operated on.

* * *

Handbook of Diseases of the Rectum. By Louis J. Hirshman, M. D., President of the American Proctologic Society; Lee-

turer on Rectal Surgery and Clinical Professor of Proctology, Detroit College of Medicine. Revised and Rewritten Second Edition. 338 Pages. Royal Octavo. 172 Illustrations, including four Colored Plates. Price \$4.00.

The first edition of Dr. Hirschman's book met with a hearty reception at the hands of the medical profession. The present edition has been entirely rewritten, forty new illustrations, including two colored plates, have been added, and the entire book has been reset. This is pre-eminently a book for the general practitioner. It is written in the hopes that this class of the medical profession will arouse themselves to the possibilities of this line of work and not allow the charlatan and the advertising quack to take from them work which can be done by the legitimate practitioners of medicine. To that end special attention has been paid to office work in rectal diseases and the part that local anaesthesia plays in this class of work.

This is one of the most interesting and satisfactory handbooks we have ever seen on this subject. It is comprehensive, yet brief. It is decidedly practical, yet scientific. The illustrations deserve special mention. They have been well selected and in great abundance. Every general practitioner should buy this book and read it from cover to cover several times. A hitherto neglected branch perhaps of his practice will be greatly benefitted. The discussion of local anaesthesia is particularly valuable.

* * *

Psychanalysis. Psychanalysis: Its Theories and Practical Application. By A. A. Brill, Ph.B., M. D., Chief of the Neurological Department of the Bronx Hospital and Dispensary; Clinical Assistant in Psychiatry and Neurology at Columbia University Medical School. Octavo of 337 pages. Philadelphia and London: W. B. Saunders Company, 1912. Cloth, \$3.00 net.

We regret our incompetency to review this book in the manner it deserves. The author only claims to present in the main a reproduction of Freud's ideas. In doing this he has conferred a favor on the profession, for the ideas of few men in the recent past have received so much consideration as has Freud's on this particular subject. In compact form for ready reference the work should find a place in the doctor's library.

* * *

Principles and Practice of Obstetrics. By Joseph B. De Lee, A. M., M. D., Professor of Obstetrics at the Northwestern University Medical School. Large Octavo of 1060 pages, with 913 illustrations, 150 of them in colors. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, \$8.00 net; Half Morocco, \$9.50.

This is clearly one of the most satisfactory books published in recent years.

The author is one of the highest authorities on this continent and the work is the outcome of extensive experience both in teaching and practice in one of the greatest cities of the world, Chicago. Few will deny that today the surgical side of obstetrics should be emphasized, yet we believe this phase of the subject has been too greatly stressed and the general practitioner possibly discouraged at the suggestion of so many major surgical operations. This book is well balanced and a safe guide to any doctor, whether in the remotest rural district or in a large city well supplied with hospitals. After all the test of any procedure is at the bedside. The illustrations are superb, many of them by that well known artist, Becker, of Baltimore. The doctor should buy such a book as this just as frequently as any other work for no subject is more important and contrary to the general impression the advances are by no means to be despised.

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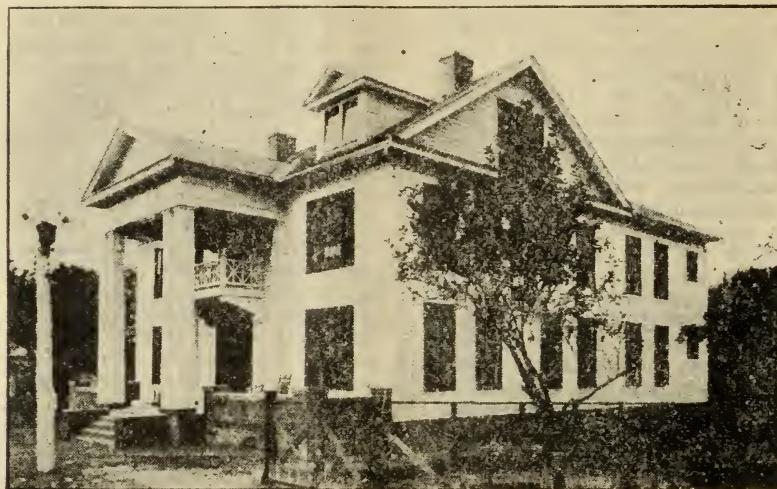
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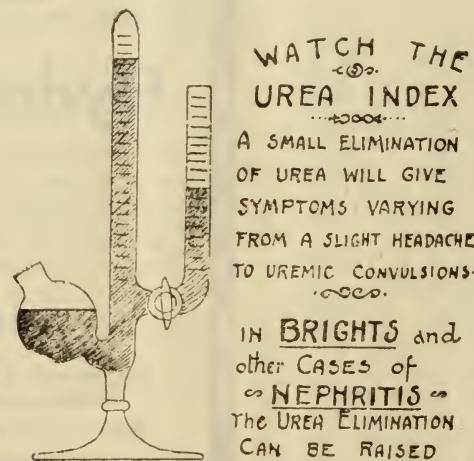
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No. 3.

Editorials

To the Medical Profession of the State:

The Faculty of the Medical College of the State of South Carolina wish to express their genuine appreciation for the splendid manner in which the physicians of the State, one and all, rallied to their support in the effort to secure the passage of the Medical College bill. All of us realize fully that the success of the bill was very largely due to the fact that the whole profession, alumni and non-alumni, presented a solid front and worked together earnestly and with perfect unity. It is very gratifying that almost immediately the improved status of the College was recognized by the Council on Medical Education and the grading raised to class B. This, however, is only a beginning; we have occupied an important strategic point, but we have not completed the fight. The College is now in a position to develop along advanced modern lines, and with the

exceptional clinical advantages which the seaport of Charleston possesses there is no reason why it should not grow into one of the greatest of Southern institutions. It is no longer hemmed in by the restrictions which are incident to a local college; it has at last become in very truth the Medical College of the State of South Carolina, a consummation which the Faculty have devoutly wished for many years, and as such it will be established upon the broadest foundations.

The newly elected trustees, who represent all parts of the State, have a big task to perform, and in the great work ahead of them they should receive the hearty encouragement of all. If the profession throughout the State will accord them the same measure of support given the faculty in the recent campaign we shall have no doubt of the future.

ROBERT WILSON, JR., Dean.
Charleston, S. C., March 6, 1913.

The Rock Hill Meeting.

The Secretary has just returned from a visit to the York County Medical Society, where he went to confer with the Society in reference to the approaching annual meeting of the State Association.

The Association met in York County in 1883 at Yorkville and again in 1894 at Rock Hill. Thus you will see that nineteen years have passed since our last meeting in that section of the State.

More than half a century ago the records of our Association show that the physicians of York District were loyal supporters of the South Carolina Medical Association and were noted for their accomplishments in medicine and surgery. Today York County has one of the strongest medical societies in the State. It may not be generally known that there are half as many physicians in the county members of the Society as there are in Charleston, Columbia, Spartanburg or Greenville. Practically every eligible physician is a member of the local Society. Dr. R. A. Bratton, of Yorkville, is President, and Dr. R. H. McFadden, of Yorkville, is Secretary.

Rock Hill has grown remarkably in recent years: the population was 273 in 1870 and today the population is around 12,000. The altitude is 668 feet above sea level, the highest point between Charlotte and Augusta, on the Charlotte division of the Southern Railway. It may be of interest to know just why the name Rock Hill: in the year 1852, about the time the Charlotte and South Carolina railway was coming through, a party of gentlemen residing in that section gathered to discuss a name: a huge flint rock located in the center of what is now Main street suggested the name Rock Hill. There are a number of points of interest in and about the city, one of

which is a \$50,000.00 post office. There are eight cotton mills, three lumber plants, railroad shops, buggy factories, etc., employing thousands of people. The wholesale houses and department stores are strictly up-to-date. The Association will be especially interested in the Carolina Hotel; the building has recently been overhauled and steam heating and plumbing fixtures installed. We advise that the members of the Association intending to go to Rock Hill write at once to the manager for reservations.

One of the greatest assets, if not her greatest, is Winthrop Normal and Industrial College, which occupies a site of about sixty acres on Oakland Avenue, the most beautiful section of the city. The institution has a main building, dining hall, three large dormitories, infirmary, science hall and a model school, besides smaller buildings. The grounds and buildings are valued at more than \$1,000,000. Many will no doubt remember that Dr. Johnson, President of the College, sent the Association a special message to hold this meeting at Rock Hill; thus we have been assured that Dr. Johnson will add materially to the entertainment of the Association.

Rock Hill has a first class street railway system, the latest type of the Edison storage battery cars being used. Just before the visit of the Secretary a party of capitalists from England came to Rock Hill to inspect the workings of this unique street car system. It has the distinction of being one of the first cities in the world to utilize Edison's new invention.

Aside from the attractions above noted Rock Hill has some special medical attractions: the Fennel Infirmary is one of the most up-to-date of the smaller hospitals in the South; Rock Hill has a Medical Club which has been doing fine work for some time;

the infirmary at Winthrop College is just now undergoing extensive repairs and additions which when completed will be one of the most modern college hospitals in the country. Included in the plans of the magnificent training school now in construction will be provision for the daily medical inspection of school children by the college physician. This beneficent feature will be an invaluable object lesson for the physicians and teachers of South Carolina.

We have every assurance of a royal reception not only from the public institutions of Rock Hill, but by her citizens generally.

Now, Doctor, the above has been penned with the sole idea of turning your thoughts in the direction of Rock Hill, April 15th, 16th and 17th. We know that if you really want to go and set about your arrangements in time the chances are you will find a way. We are quite sure you will make no mistake in a conscientious effort to attend this meeting of the State Association.

For some of the above data we are indebted to the Rock Hill *Evening Herald*.

Our Records.

We have been very fortunate in our effort to collect the records of the South Carolina Medical Association and we are indebted to a number of loyal friends of the Association for their great assistance.

We are anxious to trace the records of the Association or its history from 1854 to 1869. Dr. Walter Porcher, of Charleston, suggests that some of these records may have been published in the *Charleston Medical Journal and Review*, which will be found in the Charleston Library.

If any member of the Association can give us the above information, either forwarding us the actual re-

cords or a brief history of the Association's activities during the years alluded to above, we shall deem it an inestimable favor.

The Committee on Collection and Preservation of Records desires to make a full report at our annual meeting, giving due credit to all who have rendered assistance. The Committee consists of the following gentlemen: Dr. E. A. Hines, Seneca, S. C., Chairman; Dr. Robt. Wilson, Jr., Charleston, S. C.; Dr. C. P. Aimar, Charleston, S. C.

Membership in the American Medical Association. The Proposed Change in Name.

GEORGE H. SIMMONS, M.D., LL.D., CHICAGO:

EXPLANATORY NOTES—This abstract of an address before the conference of State Secretaries is republished from the American Medical Association Bulletin of Nov. 15, 1912, on the request of the Judicial Council. The House of Delegates referred the report of the Committee to Formulate Amendments to the Constitution and By-Laws to Extend Membership, presented at the 1912 session (*Journal*, June 15, 1912, P. 1899) to the Judicial Council with power to confer with constituent Associations. The Council, after careful consideration, endorses the proposed change and takes this means of bringing the subject to the constituent Associations as well as directing to it the attention of the members.

I have been asked to discuss the present conditions of membership in the American Medical Association and the proposed change, which has been under discussion recently. While this is not directly related to the object of this conference, the discussion of uniform regulation of state membership, it is so closely connected with it that I cannot refuse to take advantage of the opportunity of discussing the ques-

tion before such a large representation of state secretaries.

To get a clear understanding of what the present term "members" of the American Medical Association means, it is necessary to go back a little in the history of the Association.

The American Medical Association always has been a delegated body: only "delegates" ever had a right to take part in its proceedings.

"Permanent members" was a term originally applied to those delegates who connected themselves permanently with the Association after they had served as delegates. "Permanent members," however, had no rights except those of attending the meetings and taking part in the scientific work. In 1883 *The Journal* was started and the following year, for the purpose of increasing the circulation of *The Journal*, there was created another class: "Members by Application." A member of any so-called affiliated society could become a "member by application" simply by making application for membership and paying the annual dues. The difference between "members by application" and "permanent members" was that the latter had been delegates, whereas the former became members simply by making application. Neither "permanent members" nor "members by application" had vote or voice in business meetings.

MEMBERSHIP IN A. M. A. TODAY ON THE SAME BASIS AS THE FORMER "MEMBERS BY APPLICATION."

Briefly, we have the following situation:

1. The voting membership of the organization is the combined membership of all the 2,000 (more or less) component county societies, amounting approximately to 70,000 members. These elect the delegates to the House of Delegates of the State Associations; they in turn elect the delegates

who form the House of Delegates of the American Medical Association. Before 1901 the delegates to the American Medical Association were elected, or appointed, by the "affiliated" societies, which included local, district and State Societies. Since 1901, that is, since the reorganization, the delegates to the national body are elected not by local, district and State Societies, but by the State Societies alone.

2. The so-called "members of the American Medical Association" are the direct successors of the old "members by application." By their payment of dues and their subscription to *The Journal*, they were and are today the supporting or contributing group of the members of the organization.

3. The House of Delegates is composed of approximately 150 members, who are elected by the various State Houses of Delegates, which are in turn composed of delegates elected by the members of the component County Societies. The House of Delegates of the American Medical Association, therefore, is created by, and represents the combined membership of all the County Societies of all the States; it is not elected by, nor does it represent, the present "members of the American Medical Association" as such; it never has.

The result is that we have two classes which could be called members. First, the actual, logical memberships of 70,000, usually designated as "the membership of the organization." Second, the 36,822 contributing or supporting members, who are designated as "members," although these "members of the American Medical Association" have no more privileges than have all members of the organization, except the right to take part in section work. This present situation I have had shown on the accompanying chart

(Chart 1). The membership of the American Medical Association, at present 36,822, is an inner circle of the membership of County Societies, while the House of Delegates is a still smaller circle composed of those who have been elected to represent the members of the organization of the whole country.

Now the situation itself is perfectly logical and is in every way to be commended. The trouble is that we have not named our groups accurately. Those whom we now call "members of the American Medical Association" are really those members of the organization who, in addition to supporting their county and State Associations, also contribute to the support of the American Medical Association, while for the actual membership of 70,000 members we have no distinctive name.

The change that has been proposed is not a change in condition at all. It is simply a change in name. It is proposed to designate the 70,000 members included in the large outer circle (Chart 2) as "members of the American Medical Association," which they really are and always have been, while those included in the inner circle (that is, those members in good standing of their county and State Societies, who also pay \$5 a year to support the work of the American Medical Association) are to be called "fellows of the American Medical Association" instead of "members." This will make no change in the membership standing or relations of any man. If this suggestion is adopted, all members in good standing in their State organizations will be designated as "members of the American Medical Association," while those members who contribute \$5 a year to support the work of the Association will be designated as "fellows of the American Medical Association." In other words, those who are now known

as "members" of the American Medical Association will be known as "fellows" of the American Medical Association, while the term "members" will be applied to the entire, combined membership of the component County Societies of the whole country.

This plan has several advantages. In the first place it will give us a name for the entire membership of the organization, which we have never had before. Before 1901 they were referred to as members of "affiliated" societies, and since then they have been called, for lack of a distinctive name, "members of the organization." Another advantage will be that it will make clear that the voting power lies with the 70,000 members and not with the 36,822 "fellows." When this plan was first proposed, some got the impression that the intention was to compel the 70,000 members of the County Societies to become "supporting members" of the American Medical Association, as the term is now understood. This, of course, would be a ridiculous proposition. The proposed change contemplates leaving membership conditions exactly as they are; it contemplates changing the name, and not the relation.

One great disadvantage prior to the reorganization of the American Medical Association in 1901 was the fact that we had no name by which to designate the delegates. As soon as the name "House of Delegates" was adopted, then the function of the delegates became clear at once. The Association also has labored under the disadvantage, ever since its reorganization, that there has been no name by which to designate the actual voting membership, because the term "members" has been applied to the supporting body. The proposed change simply recognizes this fact, designating as "members" those who

really are members, and designating the supporting members as "fellows."

I have already given some reasons for making the change, but there is another and more important; in fact, it is the paramount reason. Up to the present time, the members of the organization have not realized that they are, in reality, members of the American Medical Association. They regard the American Medical Association as something entirely apart from them, something in which they have no interest. These members of the organization are through their elected representatives responsible for what the American Medical Association is doing, or what it ought to do and is not doing, but they do not realize this, hence they are not interested. They do not appreciate that the House of Delegates of the American Medical Association, which they elect, is the body that is doing the work through the officers, trustees, councils, etc., which they, through their representatives in the House of Delegates of the American Medical Association, select. While only a change in name, I think the subject is of the utmost importance. I hope that all of you will look into it carefully, so as to understand exactly what is intended, and then will explain it to your members at the first opportunity.

Provisional Program of the Sixty-Fifth Annual Meeting of the South Carolina Medical Association, to be Held at Rock Hill, S. C., April 16, 17, 1913.

(Subject to Rearrangement for Final Program.)

Address: Dr. J. Allison Hodges, Richmond, Va.

Address: "Surgery and the General Practitioner," Dr. H. A. Royster, Raleigh, N. C.

"Personal Sanitation," Dr. F. A. Coward, Columbia, S. C.

"Home Sanitation," Dr. Wm. Egles-

ton, Hartsville, S. C.

"The Relation of Domestic Animals to the Public Health," Dr. G. McF. Mood, Charleston, S. C.

"Quarantine," Dr. R. L. Wilson, Charleston, S. C.

"Country Sanitation," Dr. James Hayne, Columbia, S. C.

"School Sanitation," Dr. L. Rosa H. Gantt, Spartanburg, S. C.

"Causes of High Infant Mortality and How It May be Reduced," Dr. Wm. Weston, Columbia, S. C.

"A Practical Method of the Estimation of the Renal Function," Dr. J. L. Dawson, Charleston, S. C.

"Ureteral Calculi," Dr. A. B. Knowlton, Columbia, S. C.

"Spina Bifida," Dr. G. A. Neuffer, Abbeville, S. C.

"The Value of Serum Reaction in the Diagnosis of Syphilis, and in the Detection of Recurrences," Dr. G. F. McInnes, Charleston, S. C.

"The Explanation of the Bearing Upon Vitality of the Characteristic Symptoms of Meningitis With Conclusions, as Regards to Treatment," by Dr. J. F. Townsend, Charleston, S. C.

"Pus Tubes With Special Drainage," Dr. W. C. Black, Greenville, S. C.

"Diet in Disease," Dr. C. C. Geer, Greenville, S. C.

"Medical Inspection of Schools," Dr. Theo. Maddox, Union, S. C.

(Subject Unannounced), Dr. R. E. Hughes, Laurens, S. C.

(1) "Congenital Defects of the Stomach," (2) "Gases in the Stomach," Dr. F. M. Durham, Columbia, S. C.

"Prophylaxis Prognosis and Treatment of Tuberculosis," Dr. E. L. Patterson, Barnwell, S. C.

"The Physician's Opportunity," Dr. Filmore Moore, Aiken, S. C.

"The General Surgeon and His Work, With Report of My Last 100 Operations," Dr. R. T. Ferguson, Gaffney, S. C.

"Beneath the Cover Glass," Dr. N. T. Clark, Campobello, S. C.

"A Further Report on Laryngeal Diphtheria," Dr. E. W. Carpenter, Greenville, S. C.

"Albuminuria, Its Clinical Importance and Prognosis," Dr. J. J. Watson, Columbia, S. C.

"Bone Grafts in Ununited Fractures," Dr. S. C. Baker, Sumter, S. C.

"Some Often Overlooked Causes for Disturbances of the Heart," Dr. E. T. Wannamaker, Jr., Cheraw, S. C.

"The Toxemia Incident to Pregnancy," Dr. R. Lee Sanders, Anderson, S. C.

"A Report of an Unusual Case of Vesico-Vaginal Fistula, With a Method of Operating," Dr. H. W. Rice, Columbia, S. C.

"Iodine in Country Practice," Dr. W. J. Burdell, Lugoff, S. C.

"The Surgery of Remote Organs for the Alleviation of Gastric Symptoms," Dr. L. A. Griffith, Columbia, S. C.

"Essential Hematuria," Dr. J. H. Taylor, Columbia, S. C.

"A Few of the Things I Have Learned at the Pickens County Medical Association," Dr. W. A. Woodruff, Cataeechee, S. C.

"Modification of Halstead's Breast Operation," Dr. A. E. Baker, Charleston, S. C.

"Morphinism," Dr. W. C. Ashworth, Greensboro, N. C.

"Some Observations of 1100 Unselected Cases of Appendicitis, With Four Deaths," Dr. LeGrand Guerry, Columbia, S. C.

Original Articles

THE FREQUENCY OF MASTOID DISEASE.*

By J. W. Jersey, M. D., Greenville,
S. C.

The proportion of cases with mas-

toid involvement in relation to the total number of ear cases presenting for treatment at the Episcopal Eye, Ear and Throat Hospital, of Washington, D. C., according to its last annual report, is 6.1 per cent. The proportion of the same class of cases in the large ear clinics of New York, Philadelphia and Chicago is, according to hospital reports, from 2 to 3.5 per cent. The occurrence of these cases in the New Orleans Eye, Ear, Nose and Throat Hospital is in the proportion of 1.4 per cent. At the Washington institution above referred to, operation in the mastoid region is done in 8.2 per cent. of all ear cases. At the New York Eye and Ear Infirmary operation in this region is done in 6.2 per cent. of all cases; at the Illinois Charitable Eye and Ear Infirmary in 3.6 per cent.; while at the New Orleans Eye, Ear, Nose and Throat Hospital but 0.9 of one per cent. of all ear cases undergo operation for mastoid involvement. Why does this startling discrepancy exist?

Unfortunately the hospital reports of the South are meagre and give us but little information in regard to work of this special character, the New Orleans institution above quoted being the only one that I could procure offering statistics of any value. I therefore had recourse to the solicitation of the personal observations, in their private practices, of a number of prominent otologists in different parts of the country.

Where these physicians resided in localities where hospital reports were available, one cannot fail to be struck with the variable conclusions of private observers as compared with hos-

*Read before the Tri-State Medical Association of North Carolina, South Carolina and Virginia, Norfolk, Va., Feb. 19-20, 1913.

pital figures. For example, a representative institution of Chicago shows in its annual report that the occurrence of mastoid involvement was noted in 2.5 per cent. of all ear patients, and the number of mastoid operations totaled 3.6 per cent. of all ear cases. [The larger percentage of operations over diagnoses is doubtless due to the reference to each ear of a patient as a distinct operation; also the inclusion of operations for chronic middle ear disease not classed as mastoiditis, but coming rising a mastoid operation; also re-operations are included.] However, a prominent otologist of Chicago informs me that while the particular hospital which he visits does not publish an annual report, he can say that in his service he sees annually "about 200 cases of simple mastoid (acute mastoiditis?), of which about 30 per cent. are operated (on). Chronic suppurations (middle ear) operated on by radical or semi-radical mastoid number about 40 cases." You will note the disproportion between this personal observation and the hospital report referred to.

Now for a wide variation in the opposite direction: A Washington hospital shows in its annual report the occurrence of mastoid involvement in 6.1 per cent. of all ear patients, and mastoid operations on 8.2 per cent. of all ear cases. This is a larger percentage, both of occurrence and operative procedure, than is shown by any other hospital in the country, so far as I can discover, yet a very prominent otologist, himself a member of the visiting staff of this very institution, in a personal letter writes: "I am fully convinced that here in Washington we have fewer mastoids in proportion to the population than they have in the North and East."

So, we may say, personal observations, casually drawn and presented,

are of little scientific value. Doubtless this is true where the observations submitted are scattered and variable; but were we to collect a considerable number of individual opinions from men in contiguous territory and all having the same import, we should be justified in attaching some weight to the evidence.

Your attention has already been directed to the low percentage of mastoiditis recorded by the New Orleans Eye, Ear, Nose and Throat Hospital as compared with the records of Northern and Eastern institutions. Individual experience indicates the same trend. A well known Chicago otologist writes this: "In my private work I had thirty acute cases, of which ten were operated on; and fifteen cases of radical mastoid (operation)." A Southern otologist, of quite as distinguished reputation in his own territory, and unquestionably with fully as large a practice, writes that he operates in the mastoid region five or six times a year.

A Charleston observer of well recognized standing writes this: "From 1885 until grip made its first appearance in this vicinity, which was about 1889 or 1890, I did not see a single case (of mastoid disease). After the appearance of grip cases of mastoiditis became more common, but not numerous, and they never have been when we take into consideration the thousands of cases that occur further North. I do not think that I see more than half a dozen cases a year."

A prominent Birmingham specialist writes: "My observation and experience is that the farther North you go, the more ear trouble. Boston will have more than New York, New York more than Baltimore, Baltimore more than Richmond, and so on down the line."

A Richmond man, who, on account of his hospital and free clinic connections, probably does more mastoid

work than any man in Virginia, states that he does about fifteen mastoid operations annually.

A local otologist advises me that in the entire city of Jacksonville there were but thirteen mastoid operations done in the past year.

An Atlanta specialist of wide reputation, after explaining the lack of hospital records, says: "However, I know that there are very few mastoids done in Atlanta."

One of the widest known specialists in middle North Carolina writes: "Out of about 700 ear, nose and throat cases during the year 1912 I had only one (mastoid) operation, with another case (of) doubtful (diagnosis) in that it was a long time getting well."

In my own practice decidedly less than one per cent. of all ear patients show mastoid involvement of operative severity. And so the evidence goes.

My correspondence on the subject has been confined to well known men of established reputations, and their observations are uniform and unanimous—the occurrence of mastoid disease is far less frequent in the South than in the North. It is true, of course, that occasionally we hear an ambitious young man from our Southern territory boasting of the number of mastoid operations he is doing, but you will observe, as a rule, that the man who does this is an obscure bidder for the fickle dame of Fame and Fortune, and his talk is either bungcombe or ill-considered advertising either of his own unscrupulousness or his neglect and carelessness in the primary treatment of his patients.

The reason for the discrepancy in the number of mastoid operative cases in various sections of the country, and even in different institutions in the same section, is that it is customary in some places to operate only on the acute cases, and chronic cases only

when complicated or in acute exacerbation; while in other cases it is the rule to operate as well on practically all chronic middle ear cases. This comparison applies only to operative procedure in sections where statistical records show the average frequency of the disease to be approximately fixed. It has no bearing upon the actual and comparative frequency of the disease itself as it occurs in the North and in the South.

The real causes of the discrepancy in frequency in the two sections are not far to seek. McKernon, of New York, has sounded the keynote to the situation in a letter in which he says: "My own observation has been that mastoiditis is more prevalent in our colder climates than in the warmer sections." The evidence seems conclusive. Some observers have thought proximity to water has some influence on the frequency and virulence of the disease. Seemingly it has not, according to the evidence just related. Most cases occur in the period from January to May—the time of the year exercising the severest atmospheric influences upon the respiratory mucous membranes, which structures, in their pathological manifestations, are the *fons et origo* of middle ear and, therefore, mastoid infections. Steam heated, ill-ventilated houses, and severely rigorous and variable climatic conditions, make a combination which is ideal for respiratory morbidity—and mastoid disease.

It may be that the free clinics in the large cities of the North furnish more than a proper proportion of mastoid cases, first because of carelessness in the treatment of the early stages, and next because the competition of ambitious surgeons prompts a ready diagnosis. Yet the large free clinic, *per se*, is probably not a very great factor in the apparent comparative frequency of this disease, for we may point to the

previously cited report of the New Orleans institution which has a free clinic quite large enough to afford the same sort of possible temptation, yet its figures on the frequency of mastoiditis are extraordinarily small.

It is doubtless true that every case of middle ear infection, without exception, is also an epitympanic and antral infection. It is also inconceivable that such a deviation from the normal could obtain in one portion of this really tiny and confined area without affecting the other continuous and homogeneous portions, for after all the distinction and boundaries between the tympanum, epitympanum, aditus, antrum and mastoid cells may be regarded as somewhat academic and arbitrary rather than of accurate physical construction and determination. It is a great pity that this is so, for it means that there is not and cannot be a definite and certain means of diagnosing mastoiditis—of saying with authoritative conviction "here otitis media ends and here mastoiditis begins."

Alas, that the possibilities of its diagnosis are so elastic; that its metes and bounds are so uncertain, so ill-defined, that it may be likened in analogy to that other and even more famous red rag of surgery—indeed the two together might be aptly epigrammatized (or stigmatized?): Mastoiditis is the Appendicitis of Otology!

My conclusion is, therefore, after much vain search and even vainer thought, that while mastoiditis is certainly far more common in the colder climates than in the warmer ones, the actual frequency of its occurrence in any section, judged by our present lights, will never be known to you and me.

A PLEA FOR CHILDREN.*

By Theo. A. Quattlebaum, M. D., Columbia, S. C.

Conservation is a theme much spoken and written about these days. And indeed the preservation of our natural resources, whether of mineral, water power or forest, is of great importance not only for the present but more especially for the future.

The conservation of the health of our children is of more importance, involving as it does to a large extent the morals, the energies, the happiness and prosperity of our state in the coming years.

The close relation of good health to happiness; of a strong body to creative energy; of a vigorous law to mind observance, is not generally appreciated. The physically weak and the mentally deficient furnish the vast majority of our criminals. And it is true that a large part of these mental and physical deficiencies are preventable.

This fact while bringing a sad indictment of neglect in the past also gives much hope for the future. Our ability to prevent in a great measure ill health, undeveloped minds and bodies greatly magnifies our responsibilities.

But when we consider the glorious service we might render to our fellows and to our state in saving our children and our neighbors' children from the consequence of disease mental and physical, we welcome the magnitude of the obligation laid upon us, not only as physicians but as publicists and humanitarians.

In medicine conservation has aimed not only to restore health already lost, but has gone a long way farther and is working with might and main to retain good health by preventing ill health.

*Read before the Eighth District Medical Society, Batesburg, S. C., Jan. 15, 1913.

Therefore, prophylaxis or the prevention of disease is a glorious vision before us. This is a logical, common sense, humanitarian thing to do.

The object of preventive medicine is to prevent disease or to remedy defects, which if allowed to go on will result in mental deficiency or physical injury.

But you may ask what has all this to do with a plea for children? Everything, as I shall try to show you. For it is in childhood that these maladies, defects and diseases usually begin and hence this is the time for prevention or remedy. If we would save the man we must preserve the child.

Now for some concrete examples of what I am attempting to present. Who has not seen the victim of the hook-worm sixteen or eighteen years of age dwarfed in body, stunted in mind, a child of eight or ten in all points save age? The time of his salvation was in early childhood. Who has not seen the girl of ten or twelve with mouth agape, shortened upper lip exposing the crowded, displaced teeth, with dull, fishy eye, expressionless face, mental sluggishness, pallor and undersize? Now the victim of mouth breathing because of adenoids or some nasal obstruction. She might have been a beauty, strong of body, clear of eye, brilliant of mind, but for carelessness or ignorance of physician, or more likely silly fear on the part of parents, all equally fatal to the child.

The adult partially or totally deaf in one or both ears is not a rara-avis and all because his earache was uncared for or his discharging ear was permitted like Tennyson's brook, "To go on forever," or perhaps his catarrh was accepted as a matter of common occurrence, or more probably still, his adenoids were allowed to block the eustachian tubes during childhood.

Behold the little victim, or as she gets older, large victim of eyestrain,

who is dosed or doped for headache, perhaps for malaria if the pains come periodically, as they may do, for neuralgia, neurasthenia and when young spanked for her irritability or perhaps spayed when old enough to have ovarian troubles.

And all of this trouble because the teacher did not report that the child had to get nearer to the blackboard and bend closer to the book than the other scholars. Or because it was not regarded as of consequence that the little one looked through half closed lids. In parenthesis allow me to say that the pain of eyestrain is practically always bilateral and is frontal or temporal usually.

It is needless to multiply examples of the harm done to children and while children, and later as adults by failure from whatever reason to either prevent certain troubles or to remedy them. As medical men more than any other class we hold in our hands the welfare of the present generation and of the future.

When I plead for children I am pleading for adults also. The future health, happiness and prosperity of these children depend upon their present treatment. The responsibility resting upon us, as the custodians of the physical welfare of the people, is staggering. And we should feel its full weight.

Now, since the successful treatment of these various ailments depends upon early detection, the writer is calling upon you, gentlemen, to cultivate the habit of looking for evidences of the things mentioned, as well as all others generally considered as belonging to specialism. The finding of some abnormality is largely in the hands of the family physician, as usually the specialist does not see the case until it is referred by physician or parent. It is perhaps more important that you should know that something is wrong

than to know what is wrong leaving the diagnosis to the specialist.

Do not understand this to be a criticism but only a call to greater watchfulness and observation. It is gratifying to see the great advance made in recent years along the line of attention given to all organs and increased knowledge of the special functions. For the achievements of the past and for the hopes of the future "let us thank God and take courage."

PSYCHOLOGICAL MEDICINE.*

By Alert Nathan, M. D., Charleston,
S. C.

"Presume not God's to Scan;
The proper study of Mankind is Man."
—Pope's Essay on Man.

The Science of Medicine in its unrestricted sense is that great sea into whose eternal bosom flows the rivers of all other sciences. Universal in domain, its central feature is the consideration of man in all the myriad forms of his abnormality, its ultimate object the extermination of disease, from which essentially springs all perversions of physical and social function. Psychological medicine may be divided into many subheads, each dealing with its respective divisions. In the present paper, however, I use the term in a general sense, discussing briefly these various divisions. My purpose, feeble though it may be, is to direct attention to the growth and development of this department of medicine, and the practical application of its principles to the mental perversions with which it deals. To grasp this subject in its entirety we must retrace the steps of time to the Laurentian period, one hundred million years ago, when man was but a unicellular organism, traversing in unconscious majesty the silvery waters of

prehistoric times, watching him through all the gradations of evolution, noting the changes in his brain and body resulting from adaptation to environment. For it is this inaudible and ceaseless change lasting through countless centuries that has made man a psychic animal. And does not medicine strive to grasp the scheme of this little cosmos, this epitome of the world? From the period when man became a thinking being he has directed his attention to the study of natural phenomena, and it is not surprising to find him striving to solve the problem of mind. The mythologies of the world, the history of superstition, all stand as a Psychological status of the various eras of human thought. Did not the ancients and mediaevals impute madness to the individual affected as being "possessed?" Speculative mental philosophy has done much toward the demonstration of psychic activity with its instrument of introspection and observation.

Dualistic philosophy as we know regards mind and soul as two distinct and separate expressions of life. A celebrated German philosopher, scientist and psychologist, (Wundt), at first an adherent of the monistic system of Psychology, proved that the theatre of the most important Psychic processes is in the "unconscious soul;" that all mental phenomena rests on a purely physical basis ("Psycho-Physical Parrelism"), according to which every Psychic event has a corresponding physical change. He was a man deeply versed in the natural sciences of his day, particularly the medical science, which gave him a great advantage over his contemporaries. This monistic system was relinquished by him in his old age, he re-embracing the dualistic system, referring to the former as the "sin of his youth." It gave a tremendous momentum to the

*Delivered before the Scientific Session of the South Carolina Medical Society of Charleston, Sept. 15, 1912.

scientific investigation as to the nature of mind, and is even today regarded as a classic.

In this non-speculative, material and experimental age we know a little about the brain and its anatomy, but the true nature of mind and its affections still remains among the great unsolved riddles of the universe. Here then is the starting point of a system of Psychology which whereas it is forced to deal at times with the "fantastic imagery of the brain," does so on a material and near as possible scientific basis. Normal psychology explains the function of mind. It is as expressed by Haeckel, "The Science of Ideas." Before we attempt to understand abnormal mental phenomena we must know something at least of the normal mind, and this with a little study, observation and introspection can in a fair measure be acquired. A great movement is sweeping the country which has for its object the devising of a course of instruction to be added to the curriculum of the medical student, embracing the principles of normal and abnormal psychology. It is stated that in this respect American universities of medicine are fifty years behind the European. Attention has been directed to the great strides which the last decade has witnessed in this branch of medicine, and the importance of instructing the student in its principles. Not only for him who is to make his abode on the remote and sparsely populated isle of Psychiatry, but for him who is to battle with the disturbed and perverted emotionality of man, which constitutes sixty per cent. of his clientele.

Psychological medicine forms one of the most interesting chapters in the great history of science. It is the keenest instrument of analytical precision. It represents the finite of human reason. It traces mind to its final goal of good and perfection, down to the

depths of criminal degradation, passing through the labyrinth of insanity in all of its weird and horrid domain, and like Dante emerging hot from hell pauses on the shore of purgatory, gazing on the promise and possibilities of the paradise above. It reads the hieroglyphics of the mind diseased, penetrates the darksome glens of memory, revivifies the injured "Psyche," and leads her back to the verdant fields of natural thought.

In the ceaseless struggle for existence the fit survive, the unfit succumb. It must ever be, "the survival of the fittest." The stress and strain of modern civilization taxes man's nerve force to the utmost; and as all men are not born with equal nerve or mind power, it evidences itself according to its degree of inherent weakness from a mild depression of spirits to the most violent outburst of emotional insanity. The importance of the practical application of this teaching can only be duly appreciated when we consider the computations of reliable statisticians, who have adduced the fact that seventy-five per cent. of human suffering, misery, crime and woe is due to the existence of a diathesis of which we heretofore have known little, and even now seem powerless to control. From the foregoing we may conclude that when there emerges from the great crucible of modern thought and effort a science fit to cope with these dreaded afflictions, that mankind will have received a boon undreamed of, and medicine a triumph that shall remain unrivalled through all eternity.

He who studies carefully both the patient and the ailment will learn enough to convince him that there is a form of suffering and disease not dreamed of in our philosophy, and that the mockery of our potent magic is all too clearly reflected in the mirror of its agony. With sufficient experi-

ence behind us and sufficient evidence surrounding us to confirm this statement, we cannot escape the fact that medicine has failed to clearly understand the nature of these disturbances grouped under the head of "Psycho-neuroses." Nor has she yet devised an intelligent means of allaying entirely the suffering thus incurred. The mind of man has not reached that degree of acuity which might enable him to devise a means for the final elucidation of this still unravelled mystery. Science is of the opinion that these mental phenomena rests upon a physical basis, consequently underlying these affections of the mind is a mechanism as purely physiologically pathological as that of any visceral organ in disease. Now the same methods of analysis which we use in the diagnosis of somatic disease is to be employed in the understanding of this the most intricate of them all. Psycho dynamics, psycho-physiology, psycho-pathology, psycho-diagnosis, and psycho-therapy are the correlative sciences to those dealing with the vegetal tissues. The intelligent application of their principles to the tremendous list of psychoses will greatly facilitate the understanding and treatment of these conditions.

The general practitioner has never been interested in this department of medicine, notwithstanding the fact that he is the first to see the individuals affected and unconsciously traffics in their nervousness. There are many reasons for this, and chief among them is that he has yet to be taught the rudiments of their pathology and the principles of therapy. Also he has been greatly discouraged by the stupendous faith that poor humanity has placed in the mind fad and mind fake cures, which have wielded their psychological influence so successfully over the neurotic mind of man. Empiricism is the lamp which lights Science to the stirr.

And so these astute mind mongers have brought to bear upon the abnormal suggestibility of neurotics, psychopaths, and what-nots, their various influences of practical psychology. Inspired by the good results obtained in many cases, in their mad zeal, fanaticism, money lust, etc., they have duped the weaker ones into the belief that their mysterious ways can work wonders in organic disease. But the success which they have attained over the functional nervous diseases has done much to awaken the physician to the necessity of studying these cases and of employing the proper scientific treatment. Another reason for the practitioner's lack of interest is that success in every instance is not promised, nor is the remuneration great.

Through the subtle genius of Sigmund Freud, the most eminent medical Psychologist of today, we know a little more of Hysteria than Charcot taught us. Charcot proved it a Psychic disease. It was left for Freud to define the mechanism of its pathology, and he has solved the riddle of Hysteria; let his enemies protest. The works of all great men have been hailed at first with ridicule, and then with tears of gratitude; so let it be with Freud. I shall refer to him and his psycho-analytic method further on in connection with the sexual perversions. Epilepsy, another of that endless chain of Psychoses, still puzzles the will of the most learned, but ceaselessly claims as its victims many of the best and brightest of the human race. What a long list of brilliant talent has been marred by its malignant hand. Intemperance, man's greatest enemy, we now know to be due to a neuropathic constitution, and most gratifying are the results obtained in innumerable cases. Hypochondria, so called the mildest form of insanity, what misery may not be imputed to its agency? Neuras-

thenia, the "great American disease," what volumes have not been written on this subject? how countless are its victims? These are a few nervous mental conditions which we are called upon to treat outside of the frescoed walls of private sanitariums.

The legal aspect of medicine is of growing importance. Medical psychology has here stayed the law's relentless hand in proving that many forms of crime are due to insanity. And instead now of executing victims of an offended God, the law sends them to reformatories and asylums. The sexual variety of crime has received special consideration in Germany, and due to the activities of German alienists in pointing out the psychology of the sexual perversion, Germany's penal code in this respect has been modified. Psychological medicine has thrown great light on the sexual perversions. Today we know something as to the nature of Homosexuality, of lust murders, of Sadism and Masochism and their relation to society and their amenability to treatment in many instances. The role of the misdirected and ungratified sexual impulse in the psycho-neuroses has been clearly defined by Freud, already referred to in this paper. Overrated though his sexual theory may be, none can deny the important part played by the sexual impulse in these conditions. His method of psycho-analysis has revealed beyond doubt that many cases of hysteria are due to sexual causes. It is not my purpose to enter here into an explanation of his method and theories, the latter being in some instances as weird and wild as the diseases to which they are applied. It is for us to let no opportunity pass unused in observing the individual, to obtain a clear outline of his personality, to study his family history, his individual history, and if found defective we should make every

effort to place him in harmony with his surroundings. To be constantly on the lookout for early evidences of these disturbances such as mentioned in this paper, and to institute as it were, mental prophylaxis, to prevent the occurrence by a recognition of early symptoms. When these conditions are fully established we must carry out such treatment as each case would indicate. As most of these psycho-neurotic conditions are susceptible to suggestions we should rely upon the suggestive factor, and our subtlety of feeling and dynamic power in the transplantation of healthy ideas into diseased mind-soil, and thus regenerate impaired thought. This much at least can be done in our daily practice. Doubtless from the foregoing paper has been gleaned the humble attempt to arouse interest in a developing and much neglected field of work in which every individual physician can become an unconscious factor for the alleviation of pain and the uplift of suffering humanity.

ICTERUS.*

By D. M. Crosson, M. D., Leesville,
S. C.

Gentlemen of the Society: In selecting this subject for a paper to read to you today in fulfilment of a request made upon me to give you something for this occasion, it shall not be my purpose to spin out any long or different theory as to what jaundice is, or any new theory as to its etiology or causation, but I shall advance a new treatment for this malady or symptom, whichever you may choose to call it.

Jaundice is a condition in which the tissues and secretions are stained with bile pigment. Jaundice is not a disease, properly speaking, but a symp-

*Read before the Eighth District Medical Society, Batesburg, S. C., Jan. 15, 1913.

tom. The doctrine of hematogenous jaundice has been long since overthrown by the investigations of Stadelman, Hunter and others. All forms are due to obstructions (hepatogenous) and those cases of hematogenous are rather rare and exceptional. Hepatogenous or obstructive jaundice, commonly seen in inflammatory swelling of the duodenum, or of the lining membranes of the duct, is by far the most common factor in its causation and demands our best consideration. Catarrhal jaundice, foreign bodies within the duct, as gall stone, parasites, stricture, or obliteration of the duct, all should be considered, as is stated by Andrews and other great authors. Hepatogenous jaundice, icterus catarrallis, duodena cholangitis, inflammation of the common bile duct, are conditions which characterize a discoloration of the tissues from a retention and absorption of bile resulting from a catarrhal inflammation of the duct and most especially the large duct and the duodenum. Examinations will find the liver and gall bladder enlarged and many anatomical changes can be noticed which will take up too much time and space to be discussed here.

The gall bladder, as you know, is distended with bile caused by obstruction usually. In speaking of the pathology of icterus, Andrew says: "The liver and gall bladder, *in situ*, are usually found larger and of lighter color than normal and of an icteroid tint." The gall bladder is distended with bile pent up by obstruction, the mucous lining of the ductus communis is swollen and inflamed and it sometimes becomes cystic and extends to the hepatic duct and all other changes that take place in connective tissues, furnishing a proper field for the reabsorption of bile which produces a toxic condition which is sometimes only recognized when the

jaundice is observed. Preceding this we have a variety of symptoms dyspeptic and otherwise. The secretions and excretions are tinged with bile. The conjunctiva is usually colored first, so that it is most noticeable and is about the first guide to a proper diagnosis. The tears, saliva, and milk are stained with bile pigment. The bowels are usually constipated, the circulation languid, the pulse usually lower by twenty to thirty beats, and patient usually presents marked gastric and cutaneous symptoms, often much pruritus together with marked nervous symptoms. The duration varies from two to eight weeks. The prognosis is usually favorable.

Now, gentlemen, what I have said on this subject is merely historical and pathological and perhaps you all better than I know. You know the treatment laid down by the best authors as well as surgical interference, but it is my purpose in this paper to call your attention to a new treatment that I have discovered by years of experience and observation, and that is, that the medicinal properties contained in the common green garden collards is a specific for jaundice, and when given sufficiently and properly, and persistently it will cure it, and why not as well as Peruvian bark does malaria? You may feed your patients on them, give it by decoctions in large drafts, or I shall advocate the tincture or the fluid extract which will be a more ready and easier form of administration. The specific action of the drug is upon the liver and it acts well and thins the bile and causes it to be more readily carried off, thereby relieving the obstruction and reabsorption, and preventing the staining of the tissues with pigment. Try collards in your jaundice and liver troubles. I shall some day soon put upon the shelves a Tincture of Collards which shall be known as a spe-

sific for jaundice. Any portion of the collards can be used, but I prefer a tincture of the root which can be made like any other tincture, and can be given in from one to three drachm doses.

GONORRHEAL INFECTION IN THE FEMALE.*

By J. O. Sanders, M. D., Anderson,
S. C.

In taking up this subject of Gonorrhreal Infection in the Female it is not my intention to bring before you anything new or startling, but to rehash some of the old things and if possible to stimulate a desire on the part of the general practitioner to search more diligently for this much dreaded enemy to modern society. Taking into consideration the prevalence of this, now I might say almost popular scourge to womankind, it is enough to make every man of us stop and ponder; just think for a moment some statistics claim that from 80 to 90 per cent. of the adult male population of our cities have at some time been infected with gonorrhoea and then knowing full well how few of these boys are entirely cured, there is no wonder that poor unsuspecting womankind has fallen prey to such an alarming condition for which to a greater or less degree we are responsible.

The cause of gonorrhoea is too well known to you to take up your time here for a consideration of this, as we all know it is always due to the presence of the gonococcus and in adult women is generally contracted by sexual intercourse, though it may be transmitted by using infected douche nozzles, infected linen, etc. This disease is a great deal more prevalent in young girls than was thought

by our forefathers in medicine. This class of cases will tax the skill of the old true and tried as well as the young and inexperienced physician. Not only has the physician to consider the possibility of a doubt as to the diagnosis but also as to the source of infection as to who the offending party may be. A great deal of care should always be taken to try and relieve the situation, maintain your professional dignity and also to abstain from causing the peace and dignity of a home being disturbed.

There is probably no infection which appears in a greater variety of forms to tax the skill of the physician than gonorrhreal infection in the female. Its almost endless varieties of clinical pictures, its obscure onset, its peculiar progress makes it very difficult to diagnose. Again the sociological questions which arise make this problem more complicated. The anatomical differences in the genito-urinary organs of the male and female makes this a more difficult problem to deal with. The mucous membrane which may be involved in the female is enormous compared with that of the male. The vulva with its numerous folds, the urethra with its glands, the vagina with its intricate folds and glands, the cervix, the endometrium, tubes and ovaries to the peritoneum present one continuous track for the gonococcus to travel and infect.

In considering gonorrhoea, first we must understand that it is a surface disease rarely affecting the deeper structures but contenting itself with the mucous membrane. Next that the gonococcus dies when kept in a closed cavity, probably destroyed by its own toxines. Acute cases of gonorrhoea are rather uncommon to be met with by the general practitioner but when they do appear the usual symptoms are painful urination, a feeling of tender-

*Read before the Fourth District Medical Association, Spartanburg, S. C., Nov. 18, 1912.

ness about the urethra, redness, some swelling, sometimes these symptoms are followed by a chill, the discharge first white and then creamy and streaked with blood. A resort to the microscope will always clear up the diagnosis. The most of these cases have become chronic before the patient seeks help. A great many young women after marriage have slight or severe burning sensation when urinating, itching and burning of the parts about the vulva, slight discharge from urethra and vagina but thinking this due to her marriage relations goes on without mentioning it to anyone and this is the poor innocent creature who most deserves our sympathy. The urethra with its glands, the vagina and cervix are the parts generally affected. This is the class of cases that have such a wide variation of symptoms, very often slight symptoms or none at all accompany the first invasion and the cases are never seen until they have passed into the chronic form.

We have very often a great deal of trouble in finding the gonococcus in these chronic cases, but if we take a little time and trouble we will a great many times be rewarded with success. In taking smears for examination have the patient come to the office without taking a douche and be careful to caution them about this. First examine the parts to detect if present venereal warts, the labia should be spread apart and the fingers slipped into the vagina about one-half of an inch, examine carefully Bartholin's glands, if enlarged gently press them and if pus exudes get a smear from this, next massage the urethra, Skene's glands, taking a smear from these, the vagina is next inspected. If a discharge is found to be coming from higher up the posterior vaginal vault the cervix should be exposed by the use of the speculum, though be very careful to thoroughly

clean the vagina before using the speculum. If there is any discharge coming from the cervix get a smear from this. After the speculum examination is completed then a careful bimanual palpation should be made of the uterus as to the size, position, mobility, sensitiveness and as to whether the tubes are enlarged and tender. Before giving up your search in suspicious cases take these smears just before and immediately following menstruation. Sometimes we fail to find the gonococcus and have to rely on the clinical findings and reach a diagnosis by exclusion.

The main symptoms to be relied upon in making such a diagnosis are patient's history. Suspicious reddened areas at the vulva, tender somewhat enlarged Bartholin's glands, angry looking erosions of the cervix which bleed readily and from which mucopurulent discharges escape freely, a sensitive, slightly enlarged uterus and tenderness of one or both of the appendages, recurring pains in the iliac region with slight rise of temperature which accompany menstruation.

Gonorrhœal infection does not always mean sterility and to my mind a great many infections following childbirth are due to the presence of the gonococcus and not to the carelessness of the physician or to a dirty nurse, and it appears to me that these poor infected women are more liable to mixed infection, so we ought to all be very careful how we censure our brother practitioner or the nurse for the infections before we clear up the possibility of an existing infection.

TREATMENT.

In treating gonorrhœa in females it seems that there has never been any radical treatment advised as in the male, most probably because there is rarely a demand for such. The males generally request or rather demand

immediate relief but a poor woman becomes infected and is unaware of her condition or too modest to mention the fact until she has smuggled it as long as possible.

In acute cases two things are necessary for results, first—rest; second, absolute cleanliness. Put patient to bed, give light, bland diet, encourage to drink plenty of water, keep bowels regular, bathe parts with warm boric acid solution or bichloride 1-4000, give tincture hyoscyamus, pot. citras and sodii bicarbonate internally to relieve burning sensation caused by urinating. As soon as the acute stage has passed make local applications of Protargol 4 per cent. or Argyrol 25 per cent. to urethral opening.

In treating young girls and children it is best to dilate the hymen and if necessary to rupture it rather than to try to treat without disturbing it. In chronic gonorrhœa continue light diet, if it has extended to the cervix, the urethral orifice, Skene's glands, Bartholin's glands and the cervix should be treated with the silver salts or an application which I have successfully used is carbolic acid 4 parts, camphor 4 parts and alcohol 2 parts, or paint the cervix and glands with tr. iodine, carbolic acid and glycerine equal parts and if not much cervical discharge apply ichthyol and glycerine tampons 10 per cent. If the infection has gone into the cavity of the uterus the cervix should be dilated, and the uterine cavity mopped out with iodine, carbolic acid and glycerine.

Authorities differ concerning curettage. In these cases personally I have never resorted to the curette and I think it will be my last resort when I do. If the infection has reached the tubes and ovaries we should treat on general principles meeting the emergencies as they arise and let them alone for six or eight months before resort-

ing to surgical interference for two reasons, first, they sometimes get well and leave the organs to perform their function; second, if they do not do this after a certain time the pus becomes sterile and then there is no danger turning a local peritonitis into a general one. All surgical interference should be done through the abdominal route and conservatism should be the motto.

Society Reports

AIKEN COUNTY MEDICAL SOCIETY.

The Aiken County Medical Society met in February with about twenty doctors present and a number of interesting papers were freely discussed.

Officers for the coming year were elected as follows: President, Dr. R. M. Hammond; Vice-President, Dr. Hasting Wyman, Jr.; Secretary and Treasurer, Dr. Marion H. Wyman; Delegates to attend the State meeting at Rock Hill, Dr. Filmore Moore and Dr. T. G. Stone.

Since our last letter the Society has received a great loss in the death of one its best, most useful and loyal members, Dr. J. A. Milhouse, of Perry, Aiken county.

Resolutions were adopted expressing appreciation of the work of Dr. L. A. Riser, of the hookworm commission, among the people of this county, and thanking him for all courtesies shown the medical profession, and that a committee be appointed by the president to procure any aid from the county commissioners which Dr. Riser may need in the furtherance of his work.

MARION H. WYMAN, Sec.

CHARLESTON COUNTY MEDICAL SOCIETY.

The Medical Society of South Carolina (Charleston County) met at the

hall of the Society Feb. 1, 1913.

Dr. J. F. Townsend read an interesting paper entitled, "Syphilis of the Eyes and Throat." This was discussed by Drs. Whaley and Pollitzer.

Under Medical News, Dr. T. P. Whaley reported having successfully operated for hypernephroma. Dr. A. E. Baker reported that he had seen and treated several cases of prolapsus uteri with cystocele and rectocele in virgins and childless women. He did a perineorrhaphy followed by Gillian's operation.

Dr. Jersey stated that recently he had removed a bladder.

Dr. A. R. Taft demonstrated a case of thoracic aneurism, and exhibited several radiograms of the same patient.

Several business and Roper Hospital matters were discussed and then the Society adjourned.

R. M. POLLITZER, Cor. Sec.

KERSHAW COUNTY MEDICAL SOCIETY.

The Kershaw County Medical Society met Feb. 26th in Dr. Corbett's office and elected the following officers: President, S. C. Zemp; Vice-President, S. F. Brasington; Secretary-Treasurer, W. J. Burdell; Delegate to State Medical Association, Dr. Burdell; alternate, A. W. Burnett. Drs. Corbett, Clyburn and Hay were appointed Censors, and Drs. Corbett, Brasington and Clyburn with the president and secretary were appointed a "Committee on Red Cross Medical Work" in accordance with the newly adopted policy of the American Red Cross.

The proposed Camden Hospital was discussed informally and the Society decided to study plans for the management of the hospital from the professional side as a committee of the whole membership.

On motion of Dr. Brasington, Drs. Brasington and Dunn were appointed a committee to appear before the

County Board of Commissioners and urge the appropriation of a small sum of money for assistance in eradicating hookworm from this county, the Rockefeller commission being willing to send a physician here to conduct a free hookworm dispensary if the county authorities will give money to pay for the medicine used. It is the unanimous wish of the Society that such action will be taken.

W. J. BURDELL, M. D., Sec.

LAURENS COUNTY MEDICAL SOCIETY.

The annual meeting of the Laurens County Medical Association was held Monday at the offices of Drs. Ferguson and Teague. In addition to the election of officers, the Association arranged for the meeting of the District Medical Association, which will hold its next session here, meeting Thursday, March 27.

The officers chosen by the County Association for the ensuing year were: Dr. J. H. Teague, of Laurens, President; Dr. Isadore Schayer, of Laurens, 1st Vice-President; Dr. J. Lee Young, of Clinton, 2nd Vice-President; Dr. G. F. Klugh, of Cross Hill, Secretary and Treasurer; Dr. J. L. Fennel, of Waterloo, Reporter.

The sessions of the District Meeting will be held in the reception rooms at the Laurens County Hospital, and luncheon will be served the delegates by the hospital management. Drs. R. E. Hughes, W. D. Ferguson and Jesse H. Teague compose the entertainment committee.

Dr. Walker Bailey, of Clinton, is President of the District Association, which embraces the counties of Abbeville, Greenwood, Saluda, Newberry and Laurens.

J. L. FENNEL, Reporter.
Laurens, S. C., Feb. 24, 1913.

SPARTANBURG COUNTY MEDICAL SOCIETY.

The Spartanburg County Medical Society held its regular monthly meeting on Feb. 28, 1913. The Society had as its guest Dr. C. B. Earle, of Greenville, Councillor of the Fourth District. He delivered a very fine and very timely address on "The Duties of the Physician to Each Other and to the Public." Many of those present discussed the local conditions touched upon by Dr. Earle. After the meeting the Society repaired to the Gresham Hotel for dinner as the guests of Dr. S. T. D. Lancaster.

L. ROSA H. GANTT, Sec.

From the Lay Press

MEDICAL COLLEGE RAISED TO CLASS B.
TAKING OVER OF COLLEGE BY STATE
IS RESPONSIBLE FOR HIGHER RATING
OF INSTITUTION BY EDUCATIONAL
COUNCIL OF AMERICAN MEDICAL AS-
SOCIATION—EARLY PROGRESS TO CLASS
A EXPECTED—MOVE MEANS MUCH
FOR MEDICAL STANDING OF SOUTH
CAROLINA.

News and Courier, Feb. 25.

The Medical College of South Carolina was yesterday raised to the class B rank by the Council on Medical Education of the American Medical Association in session in Chicago. This action was taken as a result of the passage by the South Carolina Legislature of the Medical College bill making the College a State institution and providing the sum of \$10,000 for its reorganization for carrying it on during the current year. The early progress of the College to class A rank is expected.

News of the raising of this College to the class B rank was conveyed in a telegram to *The News and Courier* from Prof. Paul M. Rea, director of the Charleston Museum and a member

of the faculty of the Medical College, who is in Chicago representing the College at the meeting of the Council. Prof. Rea went to Chicago as the College's representative on the invitation of Dr. N. P. Colwell, the secretary of the Council, who was in Columbia at the time the Medical College bill battle was being fought, and whose strong statement in favor of the bill was a factor in the victory which the friends of the measure finally achieved.

DEAN EXPRESSES GRATIFICATION.

Dr. Robert Wilson, dean of the College, when advised last night of the raising of the College to a higher rank, expressed his deep gratification and stated that the step meant much for medical education in South Carolina. Dr. Wilson was unable to make an extended statement for publication regarding the effect of the move, being engaged with professional duties, but he expressed his pleasure at the news in enthusiastic terms.

The restoration of the Medical College to class B standing will greatly improve the position of South Carolina in medical matters. The College had the class B rank up to last year, but was at that time dropped to class C, this being due to the fact that its resources were inadequate to enable it to keep abreast of modern requirements in medical education. The reorganization which now becomes possible through the action of the State in taking over the institution is directly responsible for the raising of the College to its former status.

IMPORTANCE OF PREPARATORY WORK.

Prof. Rea stated in his telegram that the morning session of the Council had stressed the importance of one or two years of preparatory work in biology, chemistry and physics before the entrance of a student into a medical college. This is an especially important phase of medical education here, said

Dr. Wilson last night, because the Charleston Museum and the College of Charleston afford facilities which can be used to make this pre-medical work in Charleston particularly strong.

HOSPITALS TO BE GRADED.

The Council at its morning session also discussed the importance of adequately using and improving hospitals in relation to medical education. Within a year the Councils will grade hospitals as Class A, Class B and Class C. Many features of the Roper Hospital are now strong, and it is of importance that the institution take high rank under the Council's rating. Class A hospitals will be listed as affording desirable training for internes; Class B as of limited value in this respect, and Class C as entirely inadequate in this respect. Students, of course, will concentrate at high grade colleges and hospitals, so that a high rating for Charleston as to both these institutions is of the greatest importance.

Prof. Rea stated in his telegram that the officers and members of the Council on Medical Education extended their cordial congratulations to the Medical College on the successful fight for reorganization.

MEDICAL COLLEGE TRUSTEES NAMED. *The State, Feb. 21.*

A banker, two lawyers and twenty-four doctors were nominated yesterday by members of the joint assembly to fill the eight vacancies on the Board of Trustees of the new State Medical College in Charleston. Three sessions of the joint assembly and two ballots were necessary before the election of Henry P. Williams, a banker of Charleston, Dr. W. W. Fennell, of Rock Hill, Dr. Charles Sims, of Spartanburg, Dr. S. B. Fishburne, of Columbia, Dr. W. A. Tripp, of Anderson, Dr. J. M. Davis, of Orangeburg, Dr.

R. E. Hughes, of Laurens, and Dr. T. G. Craft, of Aiken.

CHEROKEE DOCTORS REORGANIZE. *The State.*

Gaffney, Feb. 26.—At a meeting of the physicians of the county, held yesterday in the office of Dr. J. T. Darwin in the Crawley Drug Company building, the Cherokee County Medical Association was reorganized and officers were elected.

The physicians had with them Dr. E. A. Hines, of Seneca, editor of the *South Carolina Medical Journal* and Secretary of the State Medical Association. Another prominent visitor was Dr. Miles J. Walker, District Censor of the State Association.

The election of officers, which was one of the most important transactions of the evening, resulted as follows:

Dr. J. T. Darwin, President; Dr. Mason W. Smith, Vice-President; Dr. Victor Roberts, of Blacksburg, Secretary.

Dr. J. N. Nesbitt, was selected as the delegate from the local Association to the State Convention, which meets in Rock Hill in April.

The Association determined to hold monthly meetings, the first Tuesday afternoon in every month at 2:30 o'clock, and are to be held in the city hall.

The Medical Association, formerly active in Gaffney, did much valuable work and was a source of satisfaction

CLARENCEON DOCTORS MEET. *The State.*

Manning, Feb. 27.—The Clarendon County Medical Association held its regular monthly meeting here today with a rather fuller attendance than usual. An interesting paper on the hookworm disease was read by Dr. Carrigan, of Summerton. Upon an invitation extended by Dr. Davis, the

Association decided to hold the next monthly session at Summerton. Drs. Davis and Carrigan presented an interesting and instructive clinic which involved the intravenous administration of salvarsan. The name of Dr. W. Scott Harvin was substituted for that of Dr. H. L. Wilson as Secretary of the Association. The next meeting of the Association will be held the last Wednesday in March.

SUPPER FOR MEDICAL STUDENTS—ENTERTAINMENT AT Y.M.C.A. IS FIRST OF SERIES OF AFFAIRS.

News and Courier, Feb. 24.

One of the most delightful social occasions of the year for Medical College men was the supper given on Friday night, February 21, at the new Young Men's Christian Association building. The affair was given under the auspices of the student committee and student department of the Y. M. C. A., and is the first of a series of monthly gatherings of Medical College students that will be held throughout the remainder of the spring.

Decorations for the occasion were of red, white and blue, in honor of Washington's birthday. Black and gold, the Medical College colors, were also used. A small American flag and a small red, white and blue hatchet were attached to each place card. The entire color scheme and all the decorations were of a patriotic nature.

A distinctive feature of the evening was the address of Dr. Robert Wilson, Jr., dean of the Medical College of the State of South Carolina. Dr. Wilson spoke on the plans and possibilities of the Medical College under the new administration which had just come into effect. Beginning when the College was first founded, Dr. Wilson traced the history of the institution up to its present time, speaking particularly of several crises in its history. In speak-

ing of the recent change of the administration several interesting points were brought out. The Medical College is no longer a private institution, but is controlled by the State. It is expected that within the next few weeks the College will be placed in class B, and perhaps higher in the grading of the National Medical Association.

Dr. Wilson said further that the plans were to build a large and well equipped building somewhere near the Roper Hospital. This, with the splendid hospital facilities, would put the State Medical College in the very front rank of medical schools in the country.

AIKEN DOCTORS ELECT OFFICERS,
The State.

Aiken, Feb. 21.—At the annual meeting of the Aiken County Medical Association, Dr. Hammond, of Montmorenci, was elected President for the ensuing year; Dr. H. Hastings Wyman, Jr., Vice-President, and Dr. M. H. Wyman, Secretary and Treasurer. Delegates to the annual Convention to be held in Rock Hill in April are: Dr. T. C. Stone and Dr. Moore. Dr. Harry H. Wyman, President of the State Board of Medical Examiners, also goes as a delegate at large.

LAURENS COUNTY MEDICAL ASSOCIATION MEETS.
Greenville News.

Laurens, Feb. 25.—The annual meeting of the Laurens County Medical Association was held Monday at the offices of Drs. Ferguson and Teague. In addition to the election of officers the Association arranged for the meeting of the District Medical Association, which will hold its next session here, meeting Thursday, March 27.

The officers chosen by the County

Association for the ensuing year are: Dr. J. H. Teague, of Laurens, President; Dr. Klugh, of Cross Hill, Secretary and Treasurer; Dr. J. L. Fennel, of Waterloo, Reporter.

The sessions of the District meeting will be held in the reception rooms of the Laurens County Hospital, and luncheon will be served the delegation by the hospital management. Dr. R. E. Hughes, W. D. Ferguson and Jesse Teague compose the entertainment committee.

Dr. Walker Bailey, of Clinton, is President of the District Association which embraces the counties of Abbeville, Greenwood, Saluda, Newberry and Laurens.

DR H. D. GEDDINGS DEAD. *The State.*

Washington, Feb. 14.—The funeral of Dr. H. D. Geddings, of the United States Health and Marine service, who died at his home here last night, will be held tomorrow afternoon at the residence. The burial will be at Glenwood cemetery.

Dr. Geddings was born in Charleston in 1859. He entered the health service when a young man, and saw service in many foreign parts.

Under the late Dr. Walter Wyman he was assistant surgeon general.

Dr. Geddings is survived by his wife, two brothers, Dr. Richard Geddings, of this city, and Maj. Edward Geddings, U. S. A., and a stepson, William N. Taft.

Subscribers who fail to get the Journal regularly should notify the editor at Seneca, S. C.

Public Health Department

LETTER OF TRANSMITTAL.

Charleston, S. C., Dec. 28, 1912.
His Excellency, Cole L. Blease, Governor, Columbia, S. C.

Sir: I have the honor to submit the 33rd Annual Report of the State Board of Health, with the request that you transmit it to the General Assembly.

It is gratifying to note that the Report of the State Health Officer, in which you will find a detailed account of the work of the Board during the past year, indicates a general improvement in health conditions. One of the best indications of this improvement is the decrease in the prevalence of typhoid fever, to which your attention is directed. This has been due partly to the increasing use of typhoid vaccine, which is manufactured in the laboratory of the Board and distributed free of cost, and also to the splendid educational work of the Health Officer, Dr. Hayne, together with that of Dr. Ward and his co-workers of the Rockefeller Commission. But notwithstanding this improvement, the disease still prevails by far too widely and, by the estimate of the State Health Officer, is costing the State approximately \$525,000 per annum. If the State Board of Health concentrated its entire energy upon this one disease alone the State would be more than repaid for the expenditure required to maintain it.

According to the figures of the State Health Officer, the lives of at least two hundred children have been saved by the free distribution of diphtheric antitoxin, at an expenditure of somewhat over five thousand dollars, or less than

thirty dollars for each child. Aside from the relief afforded so many suffering children, and the joy brought into so many households, which alone would be worth the cost many times over, the preservation of two hundred lives means an enormous saving to the State from the economic point of view.

The foundation of all sanitary progress is education, without which health work is built upon sand and cannot endure. It is very unfortunate, therefore, that we have lacked sufficient means for carrying on one of the most important of our undertakings—the publication of monthly bulletins, only one having been issued during the year. These bulletins, written in simple untechnical phraseology and conveying knowledge of diseases and the various ways of preventing them, in a manner that all can understand, have exerted a far-reaching influence. I trust that the General Assembly will see the wisdom of making special provision for carrying on this most valuable educational campaign.

The Director of the Laboratory is continuing his labors with unabated zeal and energy, the best evidence of which is to be found in the growth of his department, the work last year having been more than double that of the previous year. Your attention is especially directed to his remarks upon rabies, which show the pressing need of special legislation. If all dogs were required to be muzzled at certain seasons this terrible disease would disappear.

Once more we plead for aid to enable us to grapple with the tuberculosis evil. Year after year this terrible scourge goes on, with its train of suffering and death and poverty, and its waste of hundreds of thousands of dollars, and nothing is done. Other States are spending large sums of money to check its spread, but South

Carolina spends nothing. Will the legislature never awake to the economic importance of this disease and support the Board of Health in its fight?

Last year the appointment of a commission to study pellagra was recommended, and this recommendation is again made. Pellagra is increasing, undoubtedly, and with its increase the burden upon the State grows continually heavier. For economic reasons, if for no other, this commission should be appointed and a systematic study of the disease undertaken.

Respectfully,
ROBERT WILSON, JR.,
Chairman State Board of Health.

One of the first acts of Governor Sulzer, of New York, was the appointment of a commission to inquire into the administration of the sanitary laws of the State by the almost twelve hundred local health officers. The inquiry concerns the situation in the rural districts particularly. The testimony brought forward by the State Charities Aid Association disclosed that rural health boards do little but audit bills for their own salaries. One investigator for the Association testified that some boards "made note in the minutes of their regular meetings that the mortality among cats and dogs was surprisingly large, but made little reference to the health of the people." The average pay of a health officer in the rural districts of that State is eighty-four dollars a year—but on Long Island some of the districts pay as high as fifteen hundred dollars a year. Dr. Robert P. Bush, who is also a member of the legislative assembly, testified that local health officers generally incur the enmity of the people of the districts where they enforce the health laws, and consequently endanger their medical practice. State supervision, he said, would better protect

the health officer and the people of the district.—*The Lancet-Clinic*, March 8, 1913.

SOME REMARKS OF THE PRESIDENT.

In his inaugural address on March 4th, the President referred to problems that have confronted the medical profession in this country in a manner that seemed to promise prompt and definite action. After complimenting the country on the way it had studied methods of production, the President went on to say that, on the other hand, neither cost nor economy had been properly studied, and he continued, in words which no physician can read without a thrill of pleasure:

Nor have we studied and perfected the means by which government may be put at the service of humanity in safeguarding the health of the nation, the health of its men and its women and its children, as well as their rights in the struggle for existence. This is no sentimental duty. The firm basis of government is justice, not pity. These are matters of justice. There can be no equality or opportunity, the first essential of justice in the body politic, if men and women and children be not shielded in their lives, their very vitality, from the consequences of great industrial and social processes which they cannot alter, control, or singly cope with. Society must see to it that it does not itself crush or weaken or damage its own constituent parts. The first duty of law is to keep sound the society it serves. Sanitary laws, pure food laws, and laws determining conditions of labor which individuals are powerless to determine for themselves are intimate parts of the very business of justice and legal efficiency.—Editorial, *N. Y. Medical Journal*, March 8th, 1913.

BAD TEETH AND DISEASE.

It is interesting to read in medical journals of the present time the accounts given by medical men of the close relation between a bad condition of the mouth and teeth and ill health. It is only within a comparatively recent period that the fact has been generally recognized that the state of the mouth and teeth has an important, nearly an essential bearing on an individual's health. However, now one can hardly look into a medical or even a lay journal without observing that teeth and gums bulk large from a public health standpoint. It might be said without incurring the risk of being dubbed an exaggerator that teeth have become a national issue and that the possession of good teeth is regarded as a national asset of incalculable value. In the *Medical Press and Circular*, January 29, 1913, a correspondent points out that dental disease is much the most common cause of facial neuralgia and facial hemiplegia, while a correspondent of the *Lancet*, February 1, 1913, draws attention to the fact that many cases of ill-health which have been attributed to lead poisoning are not really due to this form of poisoning but mainly if not wholly owing to a foul condition of the mouth. The writer who is a surgeon under the British Factory Acts, argues that if a man's or woman's teeth and mouth are clean, even if they work continuously in a lead factory, there is not much fear of being poisoned by lead, but if their mouths and teeth are in an unclean state there is every probability of them being poisoned. There is no doubt that the condition of a person's mouth and teeth hinges to a great extent his health. Some may think that undue prominence is being given to the subject of teeth in these days, but if this be so it is certainly a fault on the right side.—*Medical Record*,

March 8, 1913.

TALK ON TUBERCULOSIS.

Dr. Albert L. Nathan, who was recently appointed by the State Medical Association to organize Charleston in the campaign against tuberculosis, which work has taken on national scope, will deliver a lecture at the People's Forum next Friday evening on the subject, "Humanitarian and Social Aspects of Tuberculosis."

Last night the combination stereopticon and reflectorscope, which will be used to illustrate lectures at the Forum Hall in the future, was given a trial, the machine having arrived only a day or two ago from the factory. If Dr. Nathan succeeds in securing the necessary slides in time, his lecture Friday evening will be illustrated by means of the stereopticon and reflector-scope.

Those interested in the campaign against the "Great White Plague" are urged to come out Friday evening and hear Dr. Nathan. His plan is to perfect as many working organizations as necessary in Charleston county for carrying on the fight against consumption.

This afternoon at 5 o'clock Dr. Nathan will lecture before the teachers of the city schools at the Memminger School. The idea is to get the fight on the "White Plague" organized in the schools as well as in other fields of activity.—*News and Courier*, March 11.

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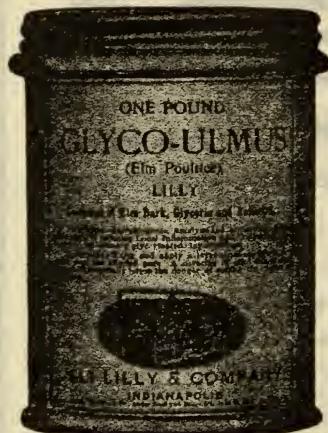
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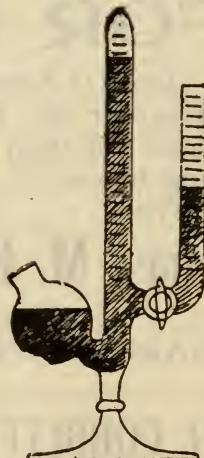
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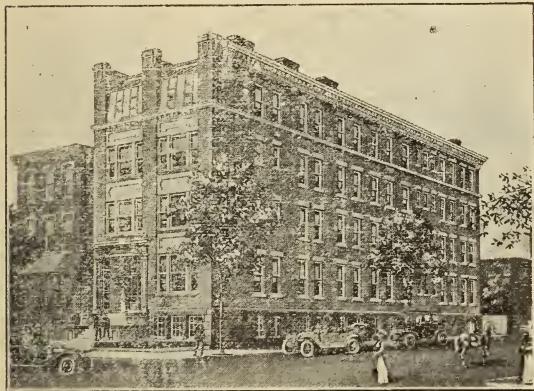
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The members are as follows: Standing from left to right: Dr. S. B. Fishburne, Dr. W. A. Tripp, Dr. W. W. Fennell, Dr. J. M. Davis, Dr. R. E. Angles and Mr. Henry P. Williams. Seated: Dr. J. B. Black, Governor Cole L. Blaase (President), and Dr. T. G. Croft, Sr. Dr. B. A. Sims was the only member of the Board absent. (Photo by Dowling.)



Journal South Carolina Medical Association

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Editorials

President William Weston.

The elevation of Dr. William Weston to the Presidency of the South Carolina Medical Association will no doubt meet with general approval throughout the entire membership.

Dr. Weston has for a number of years been a tireless worker for the uplift of the profession and has stood in the forefront of every movement which has for its object the prevention of disease.

To him belongs much of the credit of the propaganda for the enactment of a Medical Inspection of Schools Law.

Dr. Weston was born August 6, 1875, at Eastover, S. C. Attended school in Columbia, S. C., then at Patrick Military Institute, Anderson, S. C. From there he went to the University of the South Sewanee, Tenn., and later the South Carolina College, where many of his family were educated. He graduated from the Medical College of the

State of South Carolina in 1897 and subsequently enjoyed post graduate advantages at Johns Hopkins, Harvard and Columbia University (Medical Department), New York.

Dr. Weston has been president of the Columbia Medical Society and the Seaboard Surgeons' Association.

The Medical College and the Sims Monument.

Never before in the history of the profession in this State has there been presented such splendid opportunities for philanthropy on the part of the profession and the public. We believe it to be the duty of every doctor in the State to encourage both of these beneficent projects by personal contributions first and second by a systematic effort to secure aid from the public.

The Medical College at Charleston asks for \$75,000 to build a new college and the active canvass begins today, April 21st. Let every doctor who can

possibly do so mail his contribution at once. The profession has been extremely liberal in subscribing to numerous enterprises and benevolent causes but the time has come for charity to begin at home and for the calls now before us not to be turned away empty handed.

About one-third of the Sims monument fund asked of the profession is in sight. In round numbers only \$3,000 stands between us and the consummation of our hopes. Let us push our efforts more vigorously.

The Rock Hill Meeting.

Without fear of successful contradiction we may safely say that the annual meeting of the South Carolina Medical Association at Rock Hill April 15th, 16th and 17th was a success. The meeting was notable for evident progress in scientific attainments by the contributors to the program, and will stand out as one in which harmony and good fellowship prevailed. The hospitality everywhere, on the streets, in the homes of the citizens, at Winthrop College and by our brother physicians of York County will long be remembered in the annals of the South Carolina Medical Association.

Original Articles

PRESIDENTIAL ADDRESS.*

By C. M. Rees, M. D., Charleston, S. C.
Fellows of the South Carolina Medical Association:

I am profoundly conscious of the honor which you have conferred upon me in electing me President of this Association. Painfully sensitive of my unfitness for such a responsible

duty, I will beg you to bear in mind the interest which I feel in the Association. The success of this meeting shall be my first consideration, and should you detect errors, they will come from "the head and not from the heart."

I am required as part of my official duty to give you an address which aims to further the interests and welfare of the profession of which we, as a body, choose to call ourselves the best portion. We are guardians of the public health or have constituted ourselves as such, or by virtue of our calling have been made guardians. Unfortunately we have not taken our charges into our confidence and tried to teach them the way they should go and how to work for themselves. On the other hand, we hold meetings and hear scholarly addresses by some of the ablest and most earnest men in our ranks, pass resolutions, and appoint committees to go before the Legislature to urge upon them the necessity of passing laws to force upon the public regulations for the guidance and preservation of their health. Our committees go before the legislative body at a sacrifice of time, expenditure of money and great personal discomfort, and work themselves into a state of excitement and at times almost into hysterics, for the people who have not asked for such protection and have no knowledge of the necessity. If they were furnished with the proper information by this body and its component parts they would work for themselves. The fact is, the laity are clamoring for information concerning the common laws of health.

The public, I believe, should be taken into our confidence in public health matters. Yet, I recall a timely and interesting Presidential address, full of valuable suggestion for the good of the public, as much for their health as for

*Read before the South Carolina Medical Association, Rock Hill, S. C., April 16, 1913.

their commercial interests. This paper was not heard beyond the walls of the hall in which the meeting was held. At the same time and meeting, there was presented a paper, in fact, a text taken and a sermon given in a most comprehensive way upon the care of the eyes, showing the neglect which was common and the far-reaching effects of this neglect. The great need of instruction was urged dealing entirely with questions which in themselves were simple enough. To our Association this paper was most interesting and instructive, but when confined exclusively to medical men in session, it lost its real value. The public was deprived of its benefits.

When a resolution was offered to have this paper published in the daily papers, there was opposition and some dissenting votes against having a paper bearing the sacred mark of having been read at a meeting of the S. C. M. A. given to the public in the public print. The objection was made that it would be unethical. Fortunately, however, the resolution was carried, the paper was published, read very generally, and, to my personal knowledge, most favorably commented upon.

Now, if one of the highest aims and duties of the Medical Association is to "endeavor to unite into one compact organization the medical profession of the State for the purpose of fostering its growth with the diffusion of medical knowledge, of promoting friendly intercourse among physicians of the State, of safeguarding the material interests of the medical profession, of elevating the standard of medical education, of securing the enactment and enforcement of just medical laws, of enlightening and directing public opinion in regard to the broad problems of health and of representing to the world the practical accomplishment of scientific medicine"—then, working on this

broad and higher plane of duty, let the annual meetings of the S. C. M. A. be thrown open to the public for their education in so far as they concern them in matters of broader hygiene and protection of health.

Take the public into our confidence, give them the instruction and the opportunity to work with us for the good of all, particularly for themselves. Why should not an intelligent public be educated so that they would comprehend the necessity for the proper attention to the teeth, the eyes, throats, adenoids, etc.) to certain well defined and common symptoms of tubercular joint diseases and general physical condition of the child? Why should the public not be instructed in the methods of prevention of disease, bad drainage of lands, which after all are conditions primarily in their hands?

Very able discourses have been given at our annual meetings embracing the conditions which have above been mentioned—the truth of all that was said could not be denied, yet they have fallen flat and were totally without value because they were heard only by members of this Association.

Many times committees have been appointed to go before the Legislature to urge the enactment of laws aimed solely for the public good which the public did not understand, had asked for no such protection and could see no good reason, and many of the measures proposed by the medical men have been fought for this cause.

The feature which I desire to emphasize is the fact that the time is here when we, as members representing the best element of the medical profession of South Carolina, in annual session are assembled with several well defined objects in view and duties to perform. The duty which the Association owes to the public is not the least of these, but it is neglected and prejudiced when

our transactions are shrouded in mystery, and health laws are dictated without explanation and an attempt made to force them upon an intelligent public. Already decided advance has been made; compare the condition of the medical men in their relations to the public health with that existing fifteen years ago and the influence of this Association—there is marvelous improvement. Previous to ten or fifteen years ago its influence was exerted through individuals. This change was established by the reorganization of the American Medical Association.

It was not until 1889 or 1900 that some of the more active members of the A. M. A. conceived the necessity for reorganization in the medical profession, realizing that it was without influence in spite of the fact that there were many national and State societies doing good work within themselves. The profession in this country was unorganized and in a most chaotic condition as a whole. A committee, known as the Committee on Reorganization, was appointed and made its report at the St. Paul meeting in 1901. A valuable paper along the same line was written by Dr. Simunons. The importance of co-operation was realized, and the profession was at last ready and ripe for reform as was shown by the prompt and unanimous acceptance of the entire plan of reorganization proposed for the Association itself, and the continuance of the Committee with instructions to prepare in form constitution and by-laws to be recommended for adoption by all the State and County Societies. The necessity for this plan of reorganization was forcibly shown by its adoption by thirty-one (31) States within fifteen months.

The A. M. A. plan of reorganization with its constitution and by-laws was adopted at the annual meeting of this Association held in Darlington about

ten years ago. Since then the improvement in every particular is marked. Membership has increased three-fold, fellowship is better everywhere. The effect of medical organization has been clearly shown everywhere in this State.

Within the past ten years, county medical societies have been organized where they had never existed before. In many other counties where a county medical society in name only existed, meetings were rare and held at no definite periods. They were kept up only to retain representation in the State Association. In many of the counties referred to above, societies have been organized into working bodies with the constitution and by-laws proposed by the A. M. A., and each county is carrying on its work under the State Association and the State in turn under the A. M. A.

So complete was the plan of reorganization proposed in the A. M. A. and the changes so radical that many were apprehensive that it could not be made practical. But it was soon found that the profession was ripe and ready for reform, the plan of organization was so eagerly sought after that, as has already been stated, thirty-one States came into line in the first fifteen months.

The objects to be gained by organization are splendidly outlined in the report of the Committee on Reorganization which was made to the Association by Dr. N. S. Davis:

"The three objects of paramount importance to be accomplished by medical organization are, (1) the promotion of direct personal and social intercourse between physicians, by which mutual respect, personal friendship and unity of sentiment are greatly promoted. (2) The more rapid increase and diffusion of medical knowledge, scientific and practical. (3) The developing, unifying, concentrating and giving

efficient practical expression of the sentiments, wishes and policy of the profession concerning its educational, legal and sanitary welfare, and the relation of the latter to the community as a whole."

To turn to what has been said with regard to doctors securing legislative acts: What is the object of medical legislation? Is it for the benefit of physicians or for the protection of the public? There is no reason why there should be any special legislation for physicians more than for any other class of citizens, and for that matter no such legislation has been attempted. We have no right, neither do we ask the State for legislation for our sole benefit. The ultimate object must be for the public good and this fact must always be recognized by those who formulate the law.

Why should we not commence now? We have adopted the reform advanced through the efforts of the parent body, and have been organized in this State long enough to realize the benefits to be derived from organization. Then why should we not commence from this meeting and give to the public what is theirs—that which they are anxious for and would undoubtedly gladly receive with little encouragement? Supply the public at large with established facts regarding matters of general moment and public health, taking up and starting from the county societies with the adoption of a plan similar to the one recommended in a report at a session of the A. M. A. as far back as 1907, viz., that a permanent Board be created for the following purpose: "To supply the community at large with established facts regarding matters of general moment and public health. To supply these facts ethically, in good taste and without the element of individual advancement. To har-

monize and give the added value of combined effort to the several interests which are now working independently along medical lines for the common good. To direct this work under the auspices of the A. M. A., thus giving unity of purpose among workers and public expression to the aim and aspirations of the national association."

Three separate methods of enlightening the public are proposed: (1) By the publication of articles in the lay press, including daily newspapers and weekly and monthly magazines, such articles to be prepared under the direction of the Board. (2) By issuing pamphlets, circulars, etc., on such special subjects as sexual hygiene, venereal diseases, etc., and on such general subjects as typhoid fever, scarlet fever, vaccination, etc.

The plan is to print these in large quantities and have them ready for distribution in case of an epidemic or when needed for any purpose. There is an increasing demand for such literature, not only from medical societies to use in public work, but from sociologic workers. Many organizations and societies have provided such literature but with great labor and expense, whereas through this Board the work could be done at once and the circulars, etc., distributed for the use of all at comparatively little expense. (3) By public lectures given under the auspices of county medical societies, literary clubs, college settlements, etc. Some county societies have organized such public lecture courses, but the lecturers are usually handicapped because the material they want for these public lectures is scarce and scattered.

Borrowing from an address by Dr. William Osler upon the educational value of the medical society: "The well conducted medical society should represent a clearing house, in which every physician of the district would

receive his intellectual rating, and in which he would find out his professional assets and liabilities. We doctors, do not 'take stock' often enough and we are very apt to carry on our shelves stale, out-of-date goods. The society helps to keep a man 'up to the times' and enables him to refurbish his mental shop with the latest wares. Rightly used, it may be a touchstone to which he can bring his experiences to the test and save him from falling into the rut of a few sequences. It keeps his mind open, receptive and counteracts that tendency to premature senility which is apt to overtake a man who lives in a routine."

In conclusion, I beg to offer a few suggestions in the nature of recommendations, which, to my mind, appear at this time pertinent and justified. I trust the Association will take these suggestions under consideration. (1) That a member of this Association be elected and known as Organizer of the S. C. M. A., this officer to be carefully selected with a view to his special fitness for this office. That his duties be clearly defined and to consist, 1st, of setting aside sufficient time each year to visit every county medical society in this State and at a specially called meeting of the county society; to give an address with the object of getting a thorough and complete county organization upon a broad plane and to organize county medical societies where none are now in existence. That the organizer be paid his traveling expenses and a reasonable compensation while he is actually engaged in organization work for the State Medical Association. (2) In order to keep the organizer in touch fraternally with the Medical Associations of North Carolina, Georgia and Virginia, that he be appointed a delegate to the annual meetings of each one of these States and that his actual expenses be paid. And

that he be appointed and be made ex-officio one of the delegates to the House of Delegates of the A. M. A., with his expenses paid. (3) That the city of Columbia be selected as the permanent meeting place of this Association and that the Association bear its own expenses to relieve the local members of the profession and citizens of the burden of expense for entertainment.

ACIDOSIS, WITH SPECIAL REFERENCE TO THE ACETONE BODIES.*

By Harry S. Mustard, M. D., Charleston, S. C.

The various toxemias have, in the past few years, drawn to themselves much attention and proved to be of considerable interest, and as a result of this, medicine has greatly increased in both practical and theoretical information. The Physician has, from experience and knowledge gained at the bedside, given his quota; the Physiologist, as a result of careful experiments and analyses, has arrived at just and accurate conclusions; and the Pathologist, with his license to explore the case after death, has been thus enabled to explain many signs and symptoms that have heretofore sorely puzzled the medical man. Thus our ability for accurate diagnosis and rational treatment is much greater than it was ten years ago.

The condition of acidosis, which, I think, is worthy of the great interest that it has recently attracted, is due to a disturbance of metabolism; it is not associated with any one disease, but on the contrary is found in a great number of conditions. Just what constitutes this perversion of metabolism, we have heretofore been in some doubt, and proteins, fats and carbohydrates have all been subjected to close investiga-

*Read before the Medical Society of South Carolina, January 2, 1913.

tion and experiment. From these experiments, we know that under certain conditions, either of the three foods mentioned might be the cause of an acid-intoxicant. Usually, though, the well marked case of acidosis is due to a deficiency of carbohydrate oxidation, and a subsequent attempt, on the part of nature to oxidize the fats to meet this deficiency. To go into this a little more in detail: The function of the carbohydrates, normally, is to supply to the body energy, in the form of heat; the heat resulting from their oxidation. The end products of this combustion are carbon dioxide and water; the water being utilized in the general nutrition, the carbon dioxide from this and other sources unites with alkalies in the tissues as bicarbonates, and are carried in this form to the lungs. Here these acid salts are converted into carbonates by an exchange of their carbon dioxide contents (which goes out as expired air) for oxygen (which comes in as inspired air). The carbonates absorbed into the blood again, liberate their contained oxygen to the tissues—this latter being the *internal respiration*. It can be readily seen that the *Heat* and *Internal Respiration* of the body are both essential to life, and must be maintained at the cost of all else.

Oxidizable carbohydrates being absent, the body tissues need at once some other source from which heat might be derived. In the proteid formula there is a carbohydrate group; this is at once oxidized. But only too quickly the supply of heat is burned out—a slight acidosis arising even here—and in an attempt to meet the extreme demand for heat, the fats are utilized. Here is where will arise the acid intoxication. The fats are only partly oxidized, and in the process are set free beta-oxybutyric acid, diacetic acid, and acetone.

Speaking broadly, the two main classes of cases in which carbohydrates are lost as a source of heat are: (1) Where due to disease carbohydrates are not utilized. (2) Where due to improper food supply, carbohydrates are not ingested.

It has never been definitely proved that the acetone bodies are in themselves toxic, but their injurious effect and the symptoms produced are due to their ability to combine with bases. Normally in the tissues there are certain substances, known as the "Fixed Alkalies," and these bodies of course being strongly basic, are readily attracted to the free and unsatisfied acid radicles. However, as I have said above, upon the uncombined state of these alkalies depend the exchange of carbon dioxide from the tissues for oxygen from the inspired air in the lungs. Then just so soon as the alkalies become partly or entirely neutralized, the ability of the blood to convey CO₂ from the tissues to the lungs is greatly diminished. Against this alkali neutralization, nature can make certain defences. To revert to the normal again, we know that there are being constantly manufactured some acids and bases, during and as a result of the conversion of the various foods into products suitable for assimilation by the body tissues. Furthermore, on a mixed diet, acids will be formed slightly in excess of bases*—giving a slight degree of acidosis as a result of normal metabolic processes. Under ordinary conditions too high concentration of either acids or bases in the tissues is prevented by the prompt excretion of either by the kidneys, and to some extent, by the lungs. Hence, as one means of protection against an acidosis, we have this delicately adjusted mechanism. In addition to this, in an arising acid intoxication, the liver is interrupted in its urea forming pro-

cess, and ammonia, a product of intermediate metabolism, is used to neutralize the excess of acids and protect the Fixed Alkalies.

The conditions then necessary for the development of an acidosis are: (a) Either a marked excess in acid formation, (b) a deficiency in alkalies (c) an inability of the eliminative organs to throw off the acids.^{1*}

Until recently lowered carbon dioxide tension in the lungs was accepted practically without question as being the essential condition in acidosis—there being an “internal suffocation of the tissues.” This theory has never been disproved and has much in its favor. Porges, assistant to Von Noorden at Vienna, has lately called attention to the fact that there is no cyanosis associated with the hyperpnea in acidosis—and on this account, denies that the symptoms are due to CO₂ retention in the tissues. He considers the hyperpnea due to specific action of acids upon the respiratory center.^{2*} Another modern view of acidosis and its phenomena is that it is a process of *dehydration acetone*—with its power to absorb large amounts of moisture and being excreted mainly by the lungs, takes from the body enormous quantities of water, due to the rapid and deep respirations.

As the symptoms of other conditions vary, so do those of acidosis—formerly we regarded this term as being synonymous with diabetic coma—now we are more liberal in our views and realize that an acetonaemia may be manifested by symptoms varying from nausea and vomiting to conditions of convulsions or coma. There may be tachycardia, increase in blood pressure, cerebral and circulatory phenomena. There is great restlessness, some pruritus, and a constant finding is the increase in depth and rapidity of respiration without cyanosis. According to Porges,^{3*} a

patient in coma with hyperpnea and no other symptoms or history, is more apt to be suffering from acidosis than from any other condition. In addition this author states that the absence of excessive lung action serves to exclude acid intoxication. Other points of importance in symptomatology and diagnosis of acidosis are: the finding of acetone bodies in the urine, the odor in breath, and the presence or previous occurrence of any disease tending, by its pathology, to allow the increased formation of acids to occur.

The diseases in which acidosis is likely to develop are numerous, and as we come to understand metabolism and its pathology more thoroughly, many others shall be added to the list.

To give the names of all of them is almost impossible, because of the fact that new ones are being added each day. Among those diseases that tend to acid intoxication—arranged roughly, as to different methods of *carbohydrate starvation*—come those due to (1) *Pancreatic trouble*—diabetes mellitus, extirpation of the pancreas, and other conditions in which are found degeneration of pancreatic structure: any of these conditions removes from the tissues the internal secretion of the pancreas—giving the sugars for nutrition in an unoxidizable form. Next come those diseases whose pathology include (2) *Fatty degeneration of the liver*—which organ, under these conditions, allows products of incomplete and faulty metabolism to be swept into the general circulation. Among these diseases may be mentioned toxemia of pregnancy, delayed chloroform poisoning, bicyclic vomiting in children, certain cases of ileocolitis sometimes in fevers, phosphorous poisoning and acute yellow atrophy of the liver. (3) *Starvation*, actual or virtual, including gastric ulcer and carcinoma, intestinal obstruction, cachexias (whether tuber-

culosis, malignant, syphilitic or malarial) persistent vomiting of pregnancy, certain cases of uremia, some cases of infantile diarrhoea and vomiting.

The absolute diagnosis of acetonæmia is made by finding constantly the acetone bodies in the urine (meaning by "acetone bodies" beta-oxybutyric and diacetic acid and acetone), along with a high ammonia output. Tests for the acetone bodies are best made by the method recommended by Hart in the *American Journal Med. Sciences*, June, 1909. He recommends that, by using heat we drive off all performed acetone and diacetic acid, then by applying H₂O₂ to the already boiled urine, we oxidize any contained beta oxybutyric acid into acetone. Then one of the acetone tests should be applied—the simplest and best being Lange's modification of Legal's nitroprussie test. The tests for ammonia in the urine have been much simplified recently, and for quick work I would recommend the formaldehyde method—the technique for which can be found in any modern text book on clinical diagnosis.

I would like here to make reference to certain articles that have appeared in recent literature, referring to the subject.

Berghausen, *Archives Internal Med.*, Feb. 1912: Case of paroxysmal haemoglobinuria; various experiments done with blood and conclusions reached were that condition was due to acidosis, in conjunction with high carbon dioxide retention and a serum poor in salt concentration. Author attributes the origin of the acid intoxication to cold, trauma and passive congestion.

Routh, *British Med. Journal*, July 13, 1912. Case of parotitis; sugar, acetone and diacetic acid in urine. The author asks—is there some internal secretion from parotid and submaxil-

lary glands absent, due to disease, which can account for the origin of glycosuria? Or has the secretions of these glands some secondary effect upon the pancreas?

Parke, *Jour. Amer. Med. Association*, Sept. 17, 1910. Series of cases of ileo-colitis and acidosis. The author tells us that toxin from the intestinal tract cripples liver cells, thus interferes with metabolic processes, and allows the acetonæmia to arise.

Hall, *Boston Med. and Surg. Journal*, May 2, 1912, says that blood in meningitis is surcharged with acids, thus making an ideal field for the invasion of the meningococcus.

Chalfant, *Jour. Amer. Med. Association*, Sept. 14, 1912. Investigates the relation of acetone to post anesthetic vomiting; among other things, concludes that with acetone before operation, there is increased liability to vomiting, which is apt to be prolonged and severe. Also, that acetonuria after operation bears no relation to the length of anesthesia.

Rhamy, *Jour. Amer. Med. Association*, March 2, 1912. Concludes from a series of examinations in cases of pregnancy that acetone is a far more important diagnostic sign of toxemia than urea or albumen and should always be looked for as a premonitory danger signal of toxemia.

As regards treatment of the condition, I have very little to say. The main point, though, is prophylaxis; to attempt, especially in diabetic cases, to prevent absolute carbohydrate starvation. In all cases associated with disturbed metabolism, no matter from what cause, the urine should be regularly examined for the acetone bodies.

The treatment of acidosis itself, consists in endeavoring to save the fixed alkalies of the tissues by the administration of large doses of basic substances. Carbohydrates should be

added to the diet, thus interrupting the tissues in their attempt to oxydize the fats.

In conclusion I wish to particularly emphasize that (1) Acidosis is probably due to intermediate acids, arising from incomplete fatty oxidation in the absence of carbohydrates. (2) The condition in acidosis is by no means rare, but is frequently overlooked. (3) The urine should be examined for acetone as a routine procedure, especially in diabetes mellitus, pregnancy, before anesthesia, and in gastric and intestinal trouble of children. (4) Hyperpnea (Kussmaul's Respiration) is in some cases practically diagnostic of acidosis.

*Sellards. Johns Hopkins Bulletin, October, 1912.

1st Sellard. Johns Hopkins Bulletin, October, 1912.

2nd Porges. Wein Klin Wock, 1911, xxiv.

*Porges. Wein Klin Wock, 1911 xxiv.

ECLAMPSIA.*

By Robert Thrift Ferguson, M. D.,
Gaffney, S. C.

A discussion of the frequency of eclampsia and its prophylaxis at this time is of especial interest from the fact that scientific investigators both in this country and abroad are studying its etiology with the view of indicting one or more organs or parts of the body for the responsibility of this dreaded malady.

We are not interested in historical eclampsia, for it would be of no material benefit to know whether Eve was the first victim or whether it appeared first in some of her offspring, but what particularly interests us is its occurrence today, and in what percentage of our obstetrical cases we may expect it to develop. In regard to its etiology several theories may be mentioned:

a. Production of antibodies caused

by the passage of placental elements in excess into the circulation of the mother.

b. Bacterial invasion.

c. Autointoxication caused by failure of the kidneys to excrete certain toxic products from the blood, thereby resulting in imperfect metabolic processes, especially in the liver.

d. Intoxication with the products of foetal metabolism.

e. The changed relations which the nitrogen compounds bear to one another.

f. Thyroid insufficiency.

g. Albuminuria.

There have been so many theories advanced as to the etiology of eclampsia that it has been designated by one author as the "disease of theories." The work thus far done shows conclusively that the disease is due to the circulation of some toxic substance or substances in the blood which gives rise to thrombosis in many of the smaller vessels with consequent degenerative and neurotic changes in the various organs.

Eclampsia has existed for ages and shows no signs of abatement and is likely to continue indefinitely and remain the *bete noir* of the obstetrician and general practitioner until its etiology is definitely ascertained.

Convulsions in the pregnant, parturient and puerperal woman have been studied and written about for centuries and even now we are a long way from the solution as to the exact cause. Various theories have been promulgated and many scientific experiments have been made, and pathologists have worked unceasingly day and night on the placenta, liver, kidneys and central nervous system trying to find the chief seat of this morbid process which is so fatal to pregnant women. It has always been known that the equilibrium of the nervous system is easily unbalanced during pregnancy.

*Read before the Cherokee County Medical Society March 4, 1913.

Eclampsia occurs more frequently in primipara than in multipara. Twin pregnancy and hydramnios seem to be predisposing causes. As a rule it does not occur until the second half of pregnancy, and most frequently near the time of delivery, though cases have been reported as occurring as early as the third month of gestation. It is slightly increased during the winter months. This is supposed to be due to reduction of the skin functions and an indoor life. The rarity of recurrence in an individual is worthy of mention. Statistics show that the prognosis is far more unfavorable in multipara, both for mother and child, than in primipara. Blood pressure is usually high and is of both diagnostic and prognostic importance. In spite of improvement in subjective symptoms and increase in quantity of urine, blood pressure may remain high, in which case the prognosis is grave and labor should be induced.

I wish to add to the statistics already published the percentage of cases that occurred in the city of Richmond, Va., during the year 1908, also the mortality of these cases; and after a brief resume of the various conditions in which it occurs most frequently, to point out some of the salient features towards its prevention. After a laborious effort extending over a period of four months I was able to collect 50 cases that occurred in Richmond during 1908 from the 200 or more physicians doing obstetrical work there. Figuring on the number of births reported to the board of health in that year I find that eclampsia occurred once in every 56 cases. There were nine deaths reported in these 50 cases which gives a mortality rate of 18 per cent. This is perfectly astonishing and is far above what it should have been. I wish to add that these statistics included cases reported by colored physicians as well

as white.

I find that the disease occurred more frequently in the black race than in the white, and that the mortality rate was correspondingly greater among the blacks; most probably due to the fact that the black race rarely engages a physician at all and then only when they are in labor or convulsions, and thereby preventing any attempt at prophylactic treatment.

In reviewing the treatment of eclampsia I realize that I am entering a field of widely divergent views and therefore must tread lightly where other and greater men have trod; still the subject is of paramount importance in the rescue of the women of our land who are daily and hourly in danger of an eclamptic seizure, and who are beginning to dread and even avoid pregnancy on account of the harrowing tales related by friends or relatives who have seen women in apparently robust health carried to their graves in a few hours.

I wish to take up the prophylactic treatment first and my reason for doing so is because that is where we strike at the root of the disease and by grasping the earliest symptoms and giving them the attention and treatment necessary the enemy is routed in the majority of cases before any great damage is done.

Before taking up the measures necessary to prevent eclampsia I believe, as physicians, it is our duty to educate the public as to the dangers of this condition, and this can best be done by giving certain definite instructions to our patients when we are engaged to attend them, laying stress upon the symptoms of which we should be advised at any time during the pregnant state and of the possibilities that may come from neglect of this important item on their part. The physician should be immediately advised of any of the fol-

lowing symptoms: Continued headache, especially occipital, dimness of vision, amblyopia, epigastric pain, nausea and vomiting, amaurosis, oedema, and especially any falling off in quantity of urine or decided change in color.

Patients should be directed to send specimens of urine to our offices at stated intervals and these specimens should be examined, not merely macroscopically, but microscopically as well as chemically. I believe that weekly analyses should be made during the last month and always monthly or bimonthly examinations in the earlier months. This is one of the most important factors in the prevention of eclampsia. When we find a patient suffering from any of the symptoms outlined above, repeated urinalyses should be made for the detection of albumen and also to ascertain the amount of urea that is being excreted. If albumen is present the patient should be put at absolute rest in bed and on a milk diet and the bowels moved freely with some saline, preferably Epsom salts, until the albumin disappears and then a gradual return to a prescribed diet. Sometimes removal of all food and nothing but water given for 24 hours is advisable. In all cases the drinking of large quantities of water is not only desirable but imperative.

The determination of the ammonia co-efficient has become to be one of considerable importance, as a rise in this should be considered favorable, while a decrease below the normal limits is a precursor of trouble. Few practitioners are sufficiently trained in the art of chemistry to make this complicated test or are in reach of a chemist trained in this particular work—but a simple and satisfactory estimation can be made by any physician if he will follow the plan devised by Dr. E. Guy Hopkins, of Richmond, Va., and which

was published in the U. C. M. Bulletin in 1908.

There are cases where no warning symptoms occur and where the victim is entirely well when suddenly either during labor or post-partum she will be seized with convulsions. This class of cases therefore cannot be treated prophylactically until the etiology of eclampsia has been definitely determined, and from the advances recently made in the study of its causes we are led to hope that the time is not far distant when we will be treating eclampsia scientifically and not empirically as at present.

The treatment of eclampsia consists in controlling the convulsions, best with chloroform, and emptying the uterus and the use of veratrum viride to slow the pulse. After this elimination is the end desired and can be had best by the use of croton oil dropped on the back of the tongue, large quantities of salts injected into the rectum, $\frac{1}{2}$ pound at a time every two or three hours, and the use of dry heat to cause sweating. For this I find a joint of ordinary stove pipe and an elbow, which can be had at every home, placed under the cover with an ordinary lamp set under the elbow where the heat will be carried to the patient and will cause profuse sweating.

Personally, I do not believe in the use of morphine, though it is largely used by some of the best obstetricians in this and other countries. I have treated numbers of cases with the above method with 100 per cent. cures. The plan of emptying the uterus depends upon the stage of pregnancy but bi-manual dilation is the method of choice where feasible, earlier—Caesarian section or vaginal section is the better operation. Where albuminuria cannot be dissipated I believe the wisest plan to be to bring on labor ten days to two weeks before full term by intro-

ducing soft rubber catheter.

The prognosis is bad where there has been previous kidney disease, worse in multipara and still worse according to the length of time it occurs prior to full term.

CONCLUSIONS.

1. That eclampsia is largely a preventable disease.

2. After eclampsia has been developed a large percentage of the cases can be relieved by early emptying of the uterus and heroic treatment.

DIABETES.*

By T. G. Croft, M. D., Aiken, S. C.

Gentlemen: At the flattering request of your honored President and Secretary, I have been induced to prepare a short paper to read before your honorable body today. The paper that I have prepared will have nothing new to most of you and nothing but what you can get out of most any text book. My only apology is that I do not give you a paper on surgery, a subject that seems to be a popular one at most of our meetings, the members of which are general practitioners of the country, and therefore a paper on surgery would be of very little value to them as nearly all of our surgical patients are sent to the medical centers, where they have advantage of hospitals and experienced nurses. My hope in interesting you is to present a subject that we, as general practitioners, will frequently meet and have to deal with.

TREATMENT OF DIABETES.

A few years ago a strong hope was inspired that we had found a specific cure for diabetes, in the use of pancreatic extract, but alas that hope and cure, like so many of the remedies of the enthusiastic or mercenary pharm-

acist, has passed away and we are left again to depend on our therapeutics, as it has been for years past on a strict diet. Concisely stated the diet of diabetes should be as rich as possible in fats, this with the proteids we allow, is to make up for the entire exclusion of carbohydrates from the diet. Dr. Cabot says an intelligent patient of his remarked, "It seems to me it is about as broad as it is long. Without your treatment I get no use of part of my food, because it passes out through my urine, and under your diet I also get no use of part of my food, because I am not allowed to eat it at all."

Why is it not the same thing?

1st. Because we hope by giving a rest to the tissues which have charge of burning up the grape sugar, to enable them again to take up their duty in a normal consuming way.

Patients, sometimes, who have been deprived of carbohydrates for weeks and months, get back their power of absorbing them, and their glycosuria ceases.

2nd. Because in abolishing carbohydrates the symptoms which have been making the patient's life intolerable, can in a great many cases be relieved. The thirst, the torturing dryness of the tongue, the constant drinking and passing of water, the cutaneous eruptions are generally relieved, and sometimes permanently cured.

3rd. We also hope by this restriction of diet to cut off complications, such as phthisis, gangrene, cataract, etc., which, if the glycosuria were left, would perhaps prove fatal.

Moreover I think it of the greatest importance to insist that the dietetic treatment of diabetes does not consist, only in cutting off certain foods, but on the contrary on insisting and pushing the taking of certain other foods. It requires, in my mind, the greatest judgment of the physician to know

*Read before the Eighth District Medical Association, Batesburg, S. C., Jan. 15, 1913.

when he is pushing his dieting to the extreme limit. Many a patient has lost his life, I believe, by the bad judgment of his physician adhering strenuously to his restricted diet. The diet of the diabetic, says Dr. Von Noorden, should be "So ordered that the strength of the patient may thereby be maintained and, as far as possible, be increased," and if a diabetic diet does not do this, it must be modified. As a rule we have to modify the diet during some portion of each year, either because the patient cannot be made to adhere or because he cannot do well under it. Cabot advises in all severe cases to subject a patient to a strict diet three or four times a year for three or four weeks at a time. In the intervals a restricted amount of carbohydrates may be allowed, the amount allowed depending on the effects of the urine, and general nutrition of the patient. In cases where we have once freed the urine of sugar by a few weeks of strict diet we may experiment again and see what amount of carbohydrates the patient can take without producing marked glycosuria. Many such cases will do well if sugar, pastry, preserves, rice and dishes made from flour are forbidden. The patient may be allowed to eat all the bread and white potatoes he wants. If the amount of sugar does not exceed 10 to 20 grains during 24 hours, or he does not emaciate a great deal, it is not necessary to put him under strict diet. The treatment by a mild milk diet (not skim milk) will do well in mild cases, but not in severe cases. A strict abstinence from all food for 24 hours will frequently, according to Dr. Cabot, cause a long standing glycosuria to disappear, although a strict diet for months had not produced this effect. In a diet list for a diabetic patient, there should be three classes of food, 1st, those that *must* be taken; 2nd, those that *may* be taken, and 3rd,

those that *must not* be taken.

To begin with the patient must consume all the fats and oils that he possibly can. He should take at least two oz. of butter during the day. He must put cream on all possible foods. Salad dressing made from olive oil should be used plentifully on all green vegetables. Sauces made with butter and olive oil should be eaten on fish of all kinds. Bacon, on account of the large amount of fat contained, should be taken with eggs for breakfast. Cheese, especially cream cheese, is strongly advised. He is allowed to eat any of the meats or game, but he should eat as much of the fats as possible. Some of the meats advised, and which contain large amounts of fat, are salmon, mackerel, sardines, bologna sausage and dried ox tongue. In the second group of foods permitted, though of not so great value as the fats, are all of the muscular parts of the beef, calf, sheep, pig, deer, wild and domestic birds, heart, sweetbreads, kidneys, brains and marrow bones, all served in their own gravies or some non-farinaceous sauce. All kinds of fresh or salt fish, canned fish, especially sardines, on account of the oil, all shell fish such as crabs, lobsters, oysters, etc., although the liver of an oyster contains a little sugar. Among the vegetables all those grown above ground are permissible, the onion, however, can be included. Among the fruits allowed are the sour oranges, apples and peaches. The diet above is what is known as the "strict diet," but as we must always remember Von Noorden's aphorism, and if strength of the patient is not maintained or increased under this diet, it must be modified. The so-called diabetic breads are considered by the best authorities as very unreliable and contain generally large amount of starch. But almond meal made with egg is good bread, but the patient would soon tire

of it. The following is a palatable bread: Four ounces each of graham flour and bran (fresh) made into a batter with two eggs, add a teaspoonful of yeast powder, cook in pans.

Whiskey or wine in a moderate quantity are allowed, and in many cases are to the advantage of the patient. Exercise in some cases is of much benefit, but in other cases it is not advisable, and it is only by experimenting that we can find this out. Horseback or bicycle riding in the morning and a good rest in the afternoon.

On account of the frequent eruptions on the skin, bathing is of much importance, with frequent change of under-clothing. The cold bath is preferable, provided the patient reacts well from it.

The medical treatment for this disease promises very little. For the nervous irritability of diabetes I find a sedative drug, such as a bromide, anti-febrin, or sulphonal, will act well and is far superior to the opiate, as the latter constipates the bowels already bound too much as a rule, and establishes a habit abhorrent to most of us. Many believe opium in some form is by far the best treatment, but I abstain from giving it as long as possible, and only give it in the last stages of the disease, when the comfort of the patient is only to be hoped for, and then it will strew flowers to the grave. I regard the constant use of bicarbonate of soda in 1 or 2 drams every 4 hours, when we anticipate coma as most important, and a steady use of this drug in smaller doses throughout the disease as one of our most valuable remedies. First in the acid fermentation in the course of the disease, it is not only of great use in relieving this condition, but also in correcting the acid intoxication in diabetic coma. I cannot lay too much stress in advising the very

free use of this drug through the whole course of the disease.

The injection of a 3 per cent. solution of soda under the skin will often relieve the coma for a time.

The constant use of one of the mineral waters is of much value in helping to relieve constipation, which is generally present. When a patient after a strict diet is threatened with coma some carbohydrate should be allowed, but on the contrary when he has not been on a strict diet and coma threatens all carbohydrate should be forbidden.

If my paper will lead to a discussion of the subject and refresh your memories it will have served its purpose, and I am fully repaid for my effort.

SYPHILIS.*

By E. W. Carpenter, M. D., Greenville,
S. C.

Definition—Syphilis is a specific disease acquired only by inheritance or direct contact of a surface capable of absorption of the Spirochaeta. It is characterized by an initial lesion, periods of eruption of varying severity and periods of repose of varying duration. No organ in the body is exempt from paying tribute to its ravages.

It resembles everything and yet retains its individuality, so that the careful student may ferret out its presence among a labyrinth of complications. Its origin is shrouded in antiquity, a writer has affirmed its existence among the Chinese 2000 B. C. Others believe that it was transported from America by the sailors of Columbus to Europe where it soon spread to the proportion of a plague.

To the quack this disease is a glorious harvest, the credulous public being a willing prey. To the medical student it is an ordinary sequence of chancre,

*Read before the Third District Medical Association, Greenwood, S. C., Dec. 17, 1912.

secondaries and tertiaries with the comforting refuge in the use of Salvarsan.

To the *Student of Medicine* it is a vast horizon of uncertain surprises, which as they are met and conquered create in him a sense of power and respect for his profession and a growing faith in the specificity of drugs and other remedies.

This brings us face to face with the question of *cure*. Under the old regime of treatment a cure was largely a matter of guess work extending over a period of from 18 months to 5 years, the most critical not insisting on observation longer than the latter period when the marriage relation was pronounced safe, the fact is in the light of Chaudinn's discovery and the Wasserman reaction that relatively few cases were ever cured. A recent writer estimates the number 20-25 per cent.

The Wasserman reaction has come to stay, its value is not questioned, but we must be careful in dogmatizing even when its positive phase is present, for in a series of reports on the same patient's blood, we do sometimes get diverging results, this is possibly due to the personal habits of the laboratory operator, and in the late stages a considerable number show a negative phase in the face of positive clinical findings.

This reaction enables us to throw light on the question of *reinfection*. It used to be taught that the disease established an immunity for most of a natural life, because so few reinfections were reported after reputed cures. Many of these "cured cases" are now showing consistently positive Wasserman reactions which indicates that a mild chronic form of the disease was still present and reinfection was impossible on this account.

The treatment for syphilis no longer consists in the control of symptoms, but in the recognition that we are facing

a subtle, insidious and persistent malady of a serious nature.

The average physician's library on this subject is worthless and the whole subject must be re-written in the light of Ehrlich's, Schaudinn's and Wasserman's discoveries.

I do not imply that I believe that Salvarsan is an infallible cure. In the light of recent studies of its effects on the disease our initial hopes have been greatly modified. It was launched as a one dose cure. In the light of laboratory results this seemed justified; but now we recognize that such conclusions were premature, and to accomplish its greatest good often an infinite number of doses must be given, even then many cases are not cured, and we must revert to our old remedy, mercury, and admit that as a *cure* Salvarsan is available only in *early* cases.

This fact presents the necessity of the earliest possible diagnosis. Previous to 1905 our knowledge was based on clinical observation, we must either begin active treatment on the appearance of a doubtful lesion (for not over half of the initial lesions can we be dogmatic about their character), or wait until the appearance of secondary symptoms, this was permitting a more or less localized disease to become generalized, which is contrary to all our conceptions of control of infections. If the first plan was adopted many of our patients were doomed to years of useless and harmful drugging. If we adopt the latter plan, often secondary symptoms were so mild as to entirely escape notice and these individuals went about until a tertiary or para syphilis developed for which condition a cure is more indefinite and uncertain. We were perfectly helpless in our efforts to be positive of a diagnosis in the presence of suspected and doubtful cases.

Now there is no excuse, for while the

Wasserman reaction is not present in about half of the cases during the first week, its positive phase gradually increases up to 100 per cent. by the 8th or 9th week.

From the earliest appearance of the chancre we can find the Spirochete in most every case if the proper technique be used.

Another aid to diagnosis, particularly *in late* and obscure cases is the Leutin reaction of Noguchi. So there is now no excuse for the doctor who makes a diagnosis of early or doubtful cases purely on clinical grounds, the bacteriological, seriological and clinical findings should coincide before reaching a negative conclusion.

Relative Value of Salvarsan and Mercury—Salvarsan is a specific spirochetal poison in direct ratio to age of infection, if given early and repeated until a negative Wasserman is maintained for 6 months after the last injection. I believe it cures.

The longer one waits after the initial lesion before beginning this remedy, the less efficacious it is. In early cases after a series of intravenous doses of Salvarsan, it is advisable to push mercury for six months or a year.

The advantage there is in Salvarsan over mercury, is that it causes more rapid disappearance of the active and destructive lesions, and I believe shortens the duration of the disease when given early.

On the other hand, most cases can get along with mercury and I believe it will surely cure if given wisely, but requires a longer time.

The ointment is the best method we have of administering it; but there are many objections to its use. The next valuable means of introducing mercury into the system is the intra muscular. Here the Bi. Chloride is the ideal form to use when rapid effects are desired. Injected deep into the muscles of the

back, it causes no inconvenience, using a solution of 10 grs. to 500 m. water, thus 5m contains 1-10 gr. This is generally the dose I begin with when rapid effects are desired. I often increase this to 3-5 of a grain daily.

I have said nothing of the iodides, I believe their value has been greatly overestimated, and many a stomach and digestion tormented by their unnecessary use, but they still have a distinct field of usefulness. There are many other phases of the question of treatment I have not mentioned and hope they will be brought out in the discussion.

The point I most wish to emphasize is that except in the very early stages of syphilis, Salvarsan controls destructive symptoms only, and sporadic doses should not be considered curative. Its immediate effects are so misleading that I believe the indiscriminate use of it by those who are not equipped as experts is wrong.

Society Reports

CHARLESTON COUNTY MEDICAL SOCIETY.

The South Carolina Medical Association (Charleston County) held a regular meeting March 1, 1913. The meeting was a lengthy one and much interest was shown but only matters of a business and professional nature were discussed.

On March 15, 1913, the S. C. Medical Society (Charleston County) held its scientific session. The President, Dr. Mitchell, was in the chair.

Dr. A. E. Baker read a paper entitled "Five Common Surgical Lesions of the Upper Abdomen." He differentiated the varied intra-abdominal conditions and urged more careful examinations prior to operation even though often the diagnosis is not made

except during the operation. He then gave several clinical histories bearing on the paper. Drs. W. P. Porcher, H. S. Mustard, R. M. Pollitzer and J. C. Sosnowski discussed the paper. Dr. Sosnowski spoke of several lesions that in his opinion deserved notice and objected to some points that had been brought out.

Under Medical News, Dr. Porcher gave an account of work seen at several Northern clinics he had just visited. The recital was interesting and held the attention of the members.

There being no further business, the Society adjourned.

R. M. POLLITZER, Cor. Sec.

MINUTES OF CLARENDON COUNTY MEDICAL ASSOCIATION, FEB. MEETING.

The regular meeting of the Clarendon Medical Association was held at Manning, in the office of Drs. Geiger and Harvin, with the President, Dr. Dickson, in the chair. The meeting was called to order at 12 o'clock, the following members being present: Drs. Dickson, Geiger, Wilson, Brockington, Davis, Todd, Gunter, Gambrell and Carrigan. The Secretary, Dr. Harvin, was absent on account of sickness in his home. Dr. Carrigan acted in his place and read the minutes of the last meeting which were approved by the Association. Dr. Wilson, who was recently elected Secretary of the Association, asked to withdraw, stating that he wanted to give way to a younger man as his duties were such that he could not give the office its proper attention. The name of Dr. W. Scott Harvin was suggested as the next Secretary and he was unanimously elected. The Secretary was instructed to write all members of the Association asking them how much they would give towards the erection of a monument to the late J. Marion Sims, and be able to report at the present meeting.

Dr. Carrigan read a very interesting paper on "Hookworm Disease," stating that it was just as important to make an examination of the feces for this malady as it is to examine a specimen of blood or urine, and insisted upon all cases being treated as soon as the disease was recognized.

Dr. Gunter, of Paxville, was asked to read a paper at the next meeting.

An invitation was extended the Association by Dr. Davis to hold its next meeting in Summerton. This invitation was accepted.

Dr. Davis presented a most interesting clinic, which resulted in the intravenous administration of Salvarsan. After Dr. Davis' clinic the meeting was adjourned feeling very grateful to Dr. Geiger for the many courtesies extended by him to the Association during the meeting held in his office.

Respectfully submitted.

W. H. CARRIGAN, Act. Sec.

LEE COUNTY MEDICAL SOCIETY.

At the March meeting of the Lee County Medical Society Dr. H. M. McClure read a very interesting paper on Pneumonia.

Dr. F. M. Griffin, of Lynchburg, S. C., was received as a new member.

After the meeting adjourned we all went over to the K. of P. supper and enjoyed a very fine supper.

The following are the officers for 1913: President, Dr. S. B. DuBose; V.-President, Dr. R. O. McCutcheon; Secretary and Treasurer, Dr. H. M. McLure. H. M. McLURE, Sec.

SPARTANBURG COUNTY MEDICAL SOCIETY.

The Spartanburg County Medical Society held its March meeting with an average attendance. Those appointed to read papers failed to do so and most of the time was consumed in discussing the feasibility of the establishing of a

large general hospital with charity wards. Nothing definite was done, however, and the committee for the purpose was continued in the hope that at some future meeting it would be able to report and present some plan which could be worked out.

A communication from the members of the pellagra commission stated that they expected to arrive in Spartanburg during the first week in April with a larger appropriation and even better equipped for making investigations than they were last year.

L. ROSA H. GANTT, Sec.

SUMTER COUNTY MEDICAL SOCIETY.

The Sumter County Medical Society held its monthly meeting in Sumter, March 6, 1913, at Dr. E. R. Wilson's office. Acting in my turn of reporting the meeting to you. I beg of you this will go to the JOURNAL'S press.

Clinical cases reported:

Dr. S. C. Baker. Patient, lady 76 years; fell and broke her hip; taken to hospital and became drowsy. Urine examination. sugar. no albumin. Patient's history. Very nervous in the past; drank freely of water. Diabetic diet given to patient. Sugar decreased. Questioned society was or could injury the cause of sugar in the urine?

Dr. Holloman said fracture couldn't be associated with it. Gave causes of diabetes and saving it to be an accident that the diagnosis was made of diabetes.

Dr. Walter Cheyne considered the liver as important factor in diabetes and also increased pressure in the brain. Said the shock might have increased pressure in the brain and caused the condition.

Dr. Baker: Pancreas is chief organ at fault in diabetes, but it might be affected by the nervous system. He questioned the shock as the cause of the patient's condition.

Dr. Holloman went into the importance of a complete examination of every patient and especially of making an urinary examination.

Dr. Stuckey reported cases where the amount of albumin was great and the mind was clear up to an hour before death, patient also had a heart lesion.

Dr. Baker. The question of albumin in urine, if present, is only a pointer, its the total solids that is important. Reported case who died of nephritis and no albumin or casts in urine, but the solids were greatly diminished. The brother of above patient also died of nephritis, no albumin and few casts, solids also decreased.

Dr. Cheyne gave some physiological causes of albuminuria, "exertion"

Dr. Holloman. Woman pregnant 5 months: sp. gr. 1002, amt. 24 hours 6 qts: albumin small amount. Patient taking now Basham's mixture oz. tid. salts oz. in a.m.; swollen, headache, black spots in front of eyes; albuminuria retinitis. He questions if she had nephritis before becoming pregnant.

Dr. Baker mentioned the Marion Sims monument and the slow action the medical men were taking in it.

W. S. BURGESS.

PROGRAM OF THE THIRD DISTRICT MEDICAL ASSOCIATION, HELD THURSDAY, MARCH 27, 1913, 11:30 O'CLOCK, ASSEMBLY HALL, LAURENS COUNTY HOSPITAL, LAURENS, S. C.

T. L. W. Bailey, President, Clinton, S. C.

R. B. Epting, V.-President, Greenwood, S. C.

G. P. Neel, Secretary, Greenwood, S. C.

PROGRAM.

Called to order.

Divine invocation.

Welcome: Rolfe E. Hughes, M. D., Laurens Medical Society.

Luncheon, 2:30 p. m.

The following papers were read:

The Era of Preventative Medicine,
John H. Miller, M. D., Cross Hill.

Observations as a Factor in Advancing
the Science of Medicine, O. B.
Mayer, M. D., Newberry.

Irrigation in Entero-Colitis, Isadore
Schayer, M. D., Laurens.

Management of Puerperal Eclampsia,
Jesse H. Teague, M. D., Laurens.

Eclampsia, W. Laurens Bailey, M.
D., Coronaca.

The Discovery of Cancer in Plants,
Hugh K. Aiken, M. D., Laurens.

Appendicitis, G. P. Neel, M. D.,
Greenwood.

Ante-Partum and Post-Partum
Douche, and the Repair of Cervical and
Perineal Lacerations, J. L. Fennell, M.
D., Waterloo.

Subject Unannounced, W. P. Turner,
M. D., Greenwood.

Physical Diagnosis Pre-eminent.
Discussion opened by R. B. Epting, M.
D., Greenwood.

Subject Unannounced, J. Lee Young,
M. D., Clinton.

Volunteer Papers and Clinics.
Business.

J. L. FENNELL, M. D., Reporter.

PICKENS COUNTY MEDICAL SOCIETY.

The Pickens County Medical Society
met March 5, 1913. Dr. C. N. Wyatt,
President, called the meeting to order.

Dr. W. A. Woodruff read an interesting paper on "Malarial Fever." The paper showed thorough knowledge of the subject. Dr. Woodruff's paper was more freely discussed than any paper this season.

Dr. H. E. Russell reported a case of Acute Nephritis.

Dr. C. M. Tripp, a very promising young physician, son of Dr. W. A. Tripp, was unanimously elected a member of this Society.

At a recent meeting of this Society

Dr. Fletcher S. Porter, one of the leading physicians of Pickens, was elected a member of the Society.

R. J. GILLILAND, Sec.

From the Lay Press

BAPTISTS TO WORK FOR SANITARIUM.

COMMITTEE WILL BEGIN CANVASS
OF COLUMBIA. WHY THIS CITY WAS
CHOSEN.

State, April 4.

It was announced yesterday that the canvass for the Baptist State Hospital will begin in earnest in this city in a day or two. As yet no definite arrangements have been made for the canvass, however. The leaders and committee have not yet been chosen.

The South Carolina Baptist Hospital will be located in Columbia, if this city complies with certain conditions named by the committee in charge, according to a statement given out by the chairman of the committee.

The following statement was issued yesterday:

BUILD FOR THE FUTURE.

"Committees from Chester, Greenwood and Columbia appeared before the hospital committee and presented the claims and offers of those cities; and while the monetary offer of Columbia was not so large as that of one of the other places, its superior advantages in geographical location, railway service and other things weighed heavily in the scale. Besides, there were certain considerations which led to the selection of Columbia which promises a much greater future to the Baptist Hospital than could have been expected anywhere else for many years to come.

"The Baptist State Convention has had under consideration for about 18 months establishing a great hospital

and sanitarium somewhere in the State and for several months the committee in charge of the work has been investigating the matter of location, organization, etc. This committee has visited a number of places in the State, and looked as thoroughly into the future of the establishment as possible. And it will mean a big thing for Columbia that the hospital is to be located here.

"There are denominational hospitals in a number of the Southern States, and every one of them is a thriving institution and a great boon to suffering humanity. The Baptists in South Carolina number about 140,000 and their support of an institution of this sort means more than an immense monetary endowment. Their other institutions in South Carolina are all well provided for and this one will be.

CHARTER SECURED.

"The South Carolina Baptist Hospital was chartered by a special act of the Legislature last February, and the members of the commission forming the corporation are: The Rev. Louis Bristow, of Abbeville; the Rev. J. D. Huggins, Denmark; John M. Kinard, Newberry; Dr. Howard Lee Jones, Charleston; the Rev. Z. T. Cody, Greenville; the Rev. A. T. Jamison, Greenwood; Geo. H. Edwards, Darlington; J. W. Quattlebaum, Anderson; the Rev. Charles A. Jones, Bennettsville; J. H. Wharton, Waterloo; the Rev. C. E. Burts, Columbia, and H. A. Graham, Greenwood.

ALLENDALE WAGES FIGHT ON HOOK-WORM.

Columbia State.

Allendale, April 9.—Dr. Wickliffe Rose, of Washington, D. C., the administrative secretary of the Rockefeller hookworm commission, is a visitor in Allendale today.

Dr. Wickliffe has charge of organ-

izing the work in connection with the hookworm treatment in the Southern States, and is now on a tour of supervision. He says that the work is progressing satisfactorily—the number of patients treated the first year being 14,000, the second year 140,000, the third year 240,000—thus showing that the people are gradually awakening to the opportunity knocking at their door for the eradication of this scourge that affects the Southern States.

In the opinion of Dr. Wickliffe the work so far has been of an experimental nature, but as the people are becoming more and more educated, and see the miraculous cures, they will take up the important matter of sanitation, which is the only means of preventing the contraction of hookworm disease.

Dr. J. T. Howell, of the State Board is doing effective work at Allendale, where he opens the hookworm dispensary every Tuesday.

Dr. LaBruce Ward, of the Rockefeller hookworm commission, delivered a lecture last evening at the town hall on the subject of health and how to keep in that state. His lecture was supplemented by interesting and instructive stereopticon slides showing germ life in its relation to disease. The common house fly, also known as the typhoid fly, figured prominently in the pictures as a tireless distributor of disease germs. His breeding place in stable manure and decaying piles of refuse in the back yard, well fits him as a disease carrier. The stable fly as the carrier of infantile paralysis and the mosquito as the source of malaria, was also dwelt upon.

After mentioning many of the infectious and contagious preventable diseases, Dr. Ward devoted the most of his lecture to the hookworm, its life history and the means of eradicating it.

The pictures of whole families in-

fected with hookworm which were put on the screen impressed one with the seriousness of the disease. It was pointed out that the disease lowered the vitality to such an extent that the subject readily succumbed to other diseases; that in children it retarded their growth, and often checked it entirely, both in body and mind.

Dr. Ward held the attention of a fairly good sized audience for an hour.

He praised the work of civic leagues throughout the country as accomplishing practical results in connection with efficient boards of health.

Dr. Ward was assisted by Dr. J. T. Howell, who conducted the display of the pictures.

THIRD DISTRICT DOCTORS HELD SPRING MEETING AT LAURENS.

Greenville News, March 28.

The spring meeting of the Third District Medical Association was held yesterday in Laurens with the Laurens County Medical Society. The counties of Newberry, Greenwood, Abbeville and Laurens compose the district and each county was well represented.

Presided over by Dr. T. L. W. Bailey, of Clinton, president of the District Association, the sessions of the meeting yesterday were held in the assembly hall of the Laurens County Hospital. The meeting was opened with an invocation by Rev. Sanders Guignard, rector of the Church of the Epiphany, followed by addresses of welcome which were delivered by Hon. R. A. Cooper on behalf of the city and Dr. Rolfe E. Hughes, representing the Laurens County Medical Society.

Papers were presented by the following: Dr. John H. Miller, of Cross Hill; Dr. O. B. Mayer, of Newberry; Dr. Isadore Schayer, of Laurens; Dr. Jesse H. Teague, of Laurens; Dr. Lawrence Bailev, of Coronaca; Dr. H. K. Aiken, of Laurens, Dr. J. D. Austin,

of Clinton; Dr. G. P. Neel, of Greenwood; Dr. J. L. Fennel, of Waterloo; Dr. W. P. Turner, of Greenwood; Dr. J. Lee Young, of Clinton, and Dr. R. B. Epting, of Greenwood.

At 2:30 o'clock an elegant luncheon was served in the hospital dining room and at 5 o'clock the meeting adjourned. It is probable that the next meeting will be held at Newberry sometime in November. The officers of the Association are: Dr. T. L. W. Bailey, of Clinton, President; Dr. R. B. Epting, of Greenwood, Vice-President; Dr. G. P. Neel, of Greenwood, secretary.

CLARENDRON DOCTORS MEET.

Columbia State.

Manning, April 3.—The Clarendon County Medical Association held its regular monthly meeting yesterday afternoon at Summerton. There was a fairly good attendance of the members and two new members were elected, Dr. Pettijohn, of Pinewood, and Dr. Jordan, of St. Paul. On motion it was decided to issue an appeal through the county paper to the women of Clarendon county to raise a fund to aid in the erection of a statue or other suitable memorial to the memory of the great Dr. Marion Sims, to whose pioneer work humanity is probably more greatly indebted than to any other one man in history. A motion was also adopted inviting Dr. Hagood Woods, of Florence, to read a paper before the Association at its next meeting, which will be held at Manning on the last Wednesday in April at 4 o'clock in the afternoon. The local members at Summerton regaled the visiting members with a delightful luncheon before allowing them to depart.

PELLAGRA SPECIALISTS ARRIVE.

News and Courier.

Spartanburg, April 10.—Dr. Philip E. Garrison, United States Navy, and

A. H. Jennings, an entomologist of the United States Department of Agriculture, arrived here today as the advance guard of the corps of scientists and physicians composing the Thompson-McFadden pellagra commission. They will continue this summer the researches made last year into the cause and nature of pellagra. Among the additions to the commission is Dr. Munsey, of the Eugenics Record office, a woman who will study the possible relation of heredity and pellagra.

SIXTY YEARS A PHYSICIAN. *Columbia State.*

St. Matthews, April 3.—Sixty years ago yesterday, Dr. W. L. Pou came to St. Matthews, then a wee station named Lewisville, and "hung out his shingle" as an M. D. He had been practicing eight months before that time in Newberry. Graduating from the class of '49 at the University of South Carolina, and in the class of '52 at the Charleston Medical College, at the age of 23, the intervening space of 60 years and eight months of this good man's life have been spent in the active pursuit of his profession. During all these years his life in every phase has been so high above anything that was little, or narrow, no man has ever so encroached upon the truth as to impeach a single act of his. He was ill in January and his friends were anxious about him. But his celebration of his 60th professional anniversary by appearing again on the streets and spreading joy and sunshine among all whom he met, gave his friends a pleasant reassurance as to his health.

Book Review

The Surgical Clinics of John B. Murphy, M. D., at Mercy Hospital, Chicago February, 1913. Published bi-monthly by W. B. Saunders Company: Philadelphia and London.

Each number of this celebrated series of stenographic reports show improvement and greater interest. This number has an address in Dr. Murphy's clinic by Mr. Lane, of London, on Open Treatment of Fractures and in addition Mr. Lane performed several operations which are carefully reported. Medicolegal Relations of Physicians and Patient by Dr. W. C. Woodward is a very valuable and timely address. Dr. Murphy's operations are reported in the usual clever manner.

* * *

International Clinics. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopaedics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene and Other Topics of Interest to Students and Practitioners by Leading Members of the Medical Profession throughout the world. Volume 1; 23rd Series, 1913. Philadelphia and London: J. B. Lippincott Co. Price \$2.00.

The quarterly digests of medical progress appear to be almost a necessity in the life of the busy doctor. The one before us is very full indeed along the lines attempted. Several articles deserve more than passing notice. For instance, Intestinal Auto-Intoxication by Sommerville, of England, is quite interesting. Retarded Mental Development in Children, by McCready, of Pittsburg, is very cleverly written. Very well worth while is the chapter on Progress of Medicine in 1912, by Cattell, of Philadelphia, and Johnson of the navy. In concise form the whole subject has been placed in a nut shell. This chapter contains about 100 pages and is worth the price of the book.

* * *

Keen's Surgery: The Volume With the Newest Surgery. Volume VI. By 81 Eminent Surgeons. Edited by W. W. Keen, M. D., LL. D., Hon. F. R. C. S. (Eng. and Edin.), Emeritus Professor of the Principles of Surgery and of Clinical Surgery, Jefferson Medical College, Philadelphia. Octavo of 1177 pages, with 519 illustrations, 22 in colors. Philadelphia and London: W. B. Saunders Company, 1913. Entire work, consisting of six volumes, per volume: Cloth \$7.00 net; Half Morocco, \$8.00 net.

This is an extremely interesting book and one which every doctor should purchase whether he has already the five volumes of the popular work or not. The contributors are the leaders of surgical thought and practice today. Among the number are the Mayos, Murphy, Ochsner, Moynihan, Mayo-Robson, Crile, Adam, Bland-Sutton.

Almost the entire domain of practical surgery has been covered and a good deal of matter presented not usually found in

books of this general character. On the other hand the every day needs of the physician or surgeon have not been overlooked for we find infections, fractures, appendicitis, uterine, displacements and military surgery. The surgery of accidents has been given careful attention in the light of many new causes for accidents..

* * *

Golden Rules of Gynecology. Aphorisms, Observations, and Precepts on the Proper Diagnosis and Treatment of Diseases of Women. By George R. Nor-

berg, M. D., Kansas City, Mo., Professor of Diseases of Women and Clinical Gynecology, University Medical College; Gynecologist Kansas City General Hospital; Fellow and ex-President Kansas City Academy of Medicine. St. Louis: C. V. Mosby Co., 1913.

This is a comparatively modest book of 253 pages but yet has a mine of wisdom. Few workers in medicine and surgery can conscientiously claim absolute freedom from routine or from following certain well defined rules. This is a handy volume of these condensed rules.

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All matters must be in the hands of the Editor by the 30th of each month.

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Vol. IX.

MAY, 1913

No. 5.

Editorials

Co-operation in the Editorial Department.

The Committee on Publication, at its last meeting, determined to open the Editorial Department of the JOURNAL occasionally to certain members of the Association by special invitation. If this idea meets with a hearty response, as we believe it will, the JOURNAL should become more interesting and instructive. Two excellent editorials are presented in this issue on subjects of vital importance. We believe that the training in Mental Diseases which most physicians have enjoyed has been too superficial to be of much practical value. Again, we believe that Preventive Medicine per se has overshadowed Preventive Surgery, and that the latter deserves more intensive cultivation than it has hitherto received, in this country, at least.

Preventive Surgery.

When we think what the advances in medical knowledge have accomplished in the way of preventive medicine, it is not surprising that we look upon it with wonder. The mere mention of the diseases, *malaria*, *yellow fever*, *tuberculosis*, *typhoid fever*, *plague*, *hookworm*, suggests the means that have been used not only in their cure but also in their prevention. The term Preventive Medicine taken in its broadest sense should include whatever means is used to maintain health, but it has been associated so intimately with sanitary science and internal medicine that we do not think of the other branches of medicine when prevention is mentioned.

Yet may this not also be an aim of surgery? To most, surgery suggests

operative procedure, undertaken to snatch the patient from an inevitable death; and the mistaken idea that surgery is a *dernier ressort* is difficult to eradicate from the mind of the layman, as well as of many physicians. But even history gives instances of preventive surgery. The rite of circumcision, a surgical operation identified with Jewish history, has kept this race more nearly free from venereal contagion than anything else, and in spite of the fact that continence is not characteristic of them. At the present time also, the effect of adherent and redundant prepuce on the nervous state of children is familiar knowledge. The baneful effects of adenoids and hypertrophied tonsils on the development of children can be demonstrated without difficulty, as well as the fact that the tonsils are a source of latent infection which may keep the body far below its normal state. The radical removal of these is certainly preventive surgery.

In the correction of deformity, either congenital or acquired: cleft palate, club foot, rachitic legs, tendon transplantation to replace muscles thrown out of function by infantile paralysis, treatment of tubercular and other inflammatory diseases of bones and joints, all these are in the realm of prevention. The field of so-called "chronic surgery" shows the preventive effect of surgery. Results of child-bearing in women often cause many symptoms owing to relaxation of the pelvic floor, and lacerations of the cervix, correction of which means preventing a dragged-out existence with nervous symptoms often accompanied by relaxation of abdominal viscera, and weakness of the trunk muscles. Again when the abdomen is opened for the treatment of some other condition, provided the patient is not jeopardized, removal of the appendix, at the same time is a conservative procedure; for

the only condition making appendicitis impossible is absence of the appendix. The removal of fibroids of the uterus before they attain large size and undergo degenerative changes affecting the tone of the heart muscles is a preventive course.

While numerous other applications of prevention in surgery can be adduced, by far the largest field of its usefulness is in preventing cancer invasion. This dread disease exacts a larger toll from human life than any pathological condition; and all the efforts toward its prevention have been fruitless except by removal of the focus before it has begun to spread. Cancer of the breast begins oftenest as a small lump and is frequently noticed to increase under the very eyes of the patient before the physician sees it. Then he may wait until he is positive of its nature—until it is too late. If its removal had been demanded as soon as noticed, and the tumor examined under the microscope, its character determined, and if malignant a radical operation performed, the patient could have been spared. Cancer of the stomach has the highest mortality of all forms of cancer; and in from 50% to 70% of the cases, its origin has been demonstrated in ulcer, a benign affection. In the uterus, too, its occurrence is frequent, and many times it manifests itself by a slight bloody discharge, which few women regard as important. When the persistence of the discharge finally demands investigation, then the advanced growth may be found, and a late operation, made necessary, can offer only a limited chance of recovery. Had the patient consulted a physician as soon as the discharge was noticed the condition would have been found—*provided the physician made a thorough examination*—in its operable stage, and the patient spared the inevitable consequences of malignant in-

vasion.

In the last issue of the *Ladies Home Journal* is an article on Cancer by Samuel Hopkins Adams. His statements are clear and forceful, and should be read carefully by everyone. The quotation of Dr. Mayo, *Delayed Surgery*, is most convincing.

Correction of deformity, relief of pain, saving of life are the indications for surgery. Preventive surgical measures certainly have a place here; and if taken advantage of early enough could increase the saving of life to a remarkable extent. *Not conservatism but conservation.*

Sir William Osler and the Phipps Clinic.

The opening of the Phipps Psychiatric Clinic in Baltimore on April 16 as a department of the Johns Hopkins Hospital, marks an epoch in the history of American medicine. The growth of Hopkins as the years have gone by, since its beginning in 1889, has been healthy and normal in a way that must be satisfactory to the friends of the institution, as well as to all who are interested in the advancement of medical science and medical education. To the original general hospital, special departments have from time to time been added by special benefactors. The latest of these is the psychiatric clinic with wards for the treatment of acute psychoses which owes its existence to the munificence of Mr. Henry Phipps, of Pittsburg and New York, who gave a million dollars for its erection, equipment and endowment. At the inaugural exercises, which lasted three days, scientists and specialists gathered from all parts of the world to pay homage to the new endowment. Many papers of value were presented to the distinguished audiences, but, as usual, the address of Osler, commands special attention. Sir William chose for his subject: "Specialism in the General Hos-

pital." Following his introductory remarks, which were unusually happy, Sir William said: "The progress in the rational treatment of insanity is a bright chapter in the history of the past century, and full of encouragement." It is the purpose of the new clinic that new methods of treatment be applied and every advance in future be subjected to the test of science. Through the training of nurses and the education of medical students, knowledge will be diffused and standards raised. To physicians in asylums the clinic should be an inspiration and help. More than any other distinguished leader in medicine, Osler has always been especially appreciative of the sociological value of the general practitioner. Never before has he made this consideration clearer than in a paragraph in this address: "And I hope room, and plenty of it, will be found for the general practitioner, through whom, more than any other group, the benefits of this institute may be distributed. He needs enlightenment, instruction and encouragement. Enlightenment, as to the vast importance of early deviations from normal mental states. Instruction, in new methods of diagnosis and treatment, and encouragement to feel that in the great fight for sanity in the community, he is the man behind the guns." There are other descriptions of the functions of the new clinic or unit, as Osler likes to term it. But here we have the great practitioner and medical orator at his best. In closing he says: Ninety-nine per cent. of our fellow creatures, when in trouble, sorrow or sickness, trust to charms, incantations, and to the saints. Many a shrine has more followers than Pasteur; many a saint more believers than Lister. Less than twenty years have passed since the last witch was burned in the British Isles." All of which is no doubt true, and more is the

pity, but none the less true, Cardinal Gibbons has seen fit upon the basis of the last quoted paragraph to call Osler to task for an alleged attack on Christianity! It seems Osler's fate to be misunderstood by some, but in spite of his detractors, he stands today in the forefront of the scientific leaders in medicine among English-speaking nations. In the matter and manner of the occassional address he is without a peer and it is always a joy to read his stimulating views on the varied phases of medicine, whether they be of history, or biography or science. The Phipps Clinic could have had no more eloquent and worthy a sponsor. Thus inaugurated and thus endowed it will, no doubt, deserve and command success from the beginning.

Original Articles

MARITIME QUARANTINE.*

By Robert L. Wilson, Passed Assistant Surgeon, United States Public Health Service.

The word "Quarantine" is derived from the French term "quarante" meaning "forty," this being the number of days detention required of vessels in Italy during the fourteenth century on account of plague. The word was thus originally used for what is now called "Maritime Quarantine" as the unqualified term "quarantine" may be applied to various restrictive measures on land or sea to prevent the introduction of disease into a place. Hence, in addition to Maritime Quarantine, we speak also of railroad quarantine, house quarantine, etc.

In the present paper the subject of

Quarantine will be considered with special reference to sea-going vessels, their cargoes and people, though measures similar in principle would be applicable to Quarantine in its various phases. In a short article it is impossible to give more than the most important features of the work and to call attention to a few things that may be of some local interest.

Maritime Quarantine is, in our country, principally administered by the National Government. The following diseases are classed as quarantinable by the United States Quarantine Regulations: Cholera, yellow fever, smallpox, typhus fever, leprosy, plague. Other communicable diseases are to be reported to the local health authorities.

Briefly stated the following vessels come under the quarantine regulations: (1) All vessels from foreign ports with certain exceptions along the Canadian and Mexican borders; (2) vessels from domestic ports where cholera, plague or yellow fever is present or smallpox or typhus fever occurs epidemically.

It is required of these vessels that certain regulations varying with the health conditions of the port of departure, the quarantinable disease in question and the kind of shipping be carried out (a) at the port of departure, (b) at sea, (c) at the port of arrival.

(a). Port of Departure. One of these requirements is that a vessel bound for the United States shall procure a bill of health from the American consul at that place. This paper gives the health status of the port as to quarantinable disease, the sanitary condition, in a general way, of the vessel, its food and water supply, the cargo and people aboard. Furthermore, the number of crew and passengers is given, the duration in port of the vessel, whether it docked or lay at anchor and a statement as to any sanitary measures car-

*Read by Title in the Symposium on Hygiene and Preventive Medicine before the South Carolina Medical Association at Rock Hill, S. C., April 16, 1913.

ried out. In some foreign ports on account of the prevalence, or greater danger to us, of quarantinable disease, medical officers of the United States Public Health Service are assigned to duty in connection with the office of the consul to certify to the condition of vessels, cargoes and people as well as such sanitary treatment as the vessel has received. A certificate of fumigation for rats or mosquitoes is often thus given. Passengers may be detained or their effects disinfected. Such precautions are not only a safeguard to the vessels and the United States but may save the ship much valuable time at the American port of arrival.

(b). At Sea. Vessels at sea, as elsewhere, are expected to practice various sanitary measures as in the way of cleanliness, war on rats, mosquitoes and vermin, the isolation of cases of contagious disease. These matters are often more intelligently carried out if a regular ship's surgeon is on board as is usually the case with the larger passenger vessels. He must keep a clinical record of cases to present to the quarantine officer at the port of arrival.

(c). Port of Arrival. The Principal part of quarantine work is performed near the various seacoast or river ports where are located our quarantine stations.

Let us look briefly at the usual equipment of these stations. First is the water craft, steamer, launch or row boat, according to the weather conditions and the amount of work at the station, which is used to carry the quarantine (or boarding) officer alongside the incoming vessel. On shore the quarantine plant will vary in extent of equipment with many conditions, principally the amount of work and the number of people detained or are likely to be detained. The more necessary things are a force of skilled officers and employees, an executive building, a

hospital, detention barracks, quarters for the station force, steam and sulphur disinfecting apparatus and material, a laboratory and such other conveniences as may be needed.

A vessel subject to quarantine inspection comes to the anchorage at the station flying a yellow flag at the foremast head, in other words, it is in quarantine until released. Immediately after the ship arrives the quarantine officer goes aboard.

The extent of the inspection will depend largely on conditions in ports where the vessel has been and on suspicious events en route. The examination is directed to the people, the cargo, the vessel itself and such biological carriers of disease as rats and mosquitoes. The bill of health and other papers are closely examined and inquiry is made as to any matters affecting the health status of the ship. All persons are seen and appropriate examination is made of any sick or suspects, the crew and steerage passengers being mustered on deck. The number of people found is checked with that of the crew and passenger lists and bill of health. Such inspection is made of rooms and holds as is suggested by conditions. A signed statement is obtained from the captain covering the sanitary history and condition of the vessel. In case no treatment other than the inspection is required a certificate of discharge from quarantine is given the captain.

What treatment the ship will need for infection or suspected infection with quarantinable disease of course will differ with the disease and the extent of the infection. As a rule those having, or suspected of being infected with, one of these diseases is removed to the quarantine station and appropriately isolated. A few words may be said as to each quarantinable disease.

First, Cholera. Persons exposed are detained 5 days from last exposure.

Parts of the vessel, food and water supply and cargo suspected of infection are disinfected or destroyed. The amount of the treatment will depend on the character of the infection and whether or not there have been cases on board. After completion of disinfection the vessel may be released, cases of the disease and suspected persons being left at the quarantine station. Special care is taken of the cholera case in quarantine that all excreta are thoroughly disinfected and that infection is not disseminated by flies and in other ways. Bacteriological examination is made of stools of all persons with diarrhoea and even of other persons in some instances to find any cholera bacillus carrier.

Second, Yellow Fever. The vessel is fumigated throughout, holds and rooms, simultaneously by burning sulphur 2 pounds to 1000 cubic feet of space for not less than 2 hours. The ship may then be released. The case is isolated at the quarantine station in a screened room to prevent access of the yellow fever mosquito, *Aedes calopus*. Exposed persons are detained 6 days from last exposure.

The sanitary treatment of this disease is very simple now as compared with the time before it was determined to be mosquito-borne. Then, not knowing where the infection was, everything around about was treated with sulphur dioxide, disinfecting solutions or steam or a combination of these methods. Even rock ballast was often dipped laboriously in bichloride of mercury solution. Now we fight the yellow fever mosquito only, and if none is present we know that there is no danger of transmission of the disease.

Third, Smallpox. This disease is so widespread over the United States, though without any great amount of it

anywhere, and our present sanitary treatment so long practiced that but few words need be said. All exposed persons if not recently successfully vaccinated are so protected. Exposed rooms and effects are disinfected with formaldehyde gas, disinfecting solutions or steam and the vessel is discharged from quarantine leaving the case and certain exposed persons at the quarantine station. Detained persons are kept 14 days unless they have smallpox, which calls for further time, or vaccinia reaches its height which may shorten the time.

In passing it is well to remind ourselves to use good vaccine. It should be a reliable brand that has not lost its potency by age or heat. Vaccine deteriorates rapidly in warm weather and should be kept in the refrigerator. When people have been exposed to smallpox we should not trifle with impotent vaccine.

Fourth, Typhus Fever. Recent investigation by Anderson, Goldberger and others show that this disease is transmitted by the body louse, *Pediculus vestimenti*. Hence, our treatment is directed against this parasite. Rooms suspected of infection by parasites are fumigated with sulphur dioxide and treated with insecticide solutions. As this louse breeds in clothing, baggage, bedding, etc., are treated with steam, boiling water or insecticide solutions.

Fifth, Leprosy. The leper and baggage are to be removed to the quarantine station. The vacated room is disinfected with formaldehyde gas, solutions if necessary. Alien lepers are not admitted as immigrants.

Sixth, Plague. Simultaneous fumigation of the ship is done by burning sulphur 2 to 4 pounds to 1000 cubic feet of space for 6 to 12 hours of exposure, larger amounts being necessary

where there is cargo. Where it is impracticable to fumigate the holds on account of damage to cargo, or for other reasons, some, or all, of the cargo may have to be removed under precautions to prevent the escape of rats. This treatment is to kill rats and their associated fleas. Fumigation by means of the products of combustion of coal yielding a mixture of carbon dioxide and carbon monoxide, nitrogen and a diminished amount of oxygen, forced into vessels through pipes may be used to kill rats but is not so efficient against their fleas. After complete deratization of the ship it may leave quarantine, leaving the plague case and suspected persons at the station.

Plague is usually transmitted from place to place by means of the rat, it being primarily a disease of that animal. People catch it principally from contact with infected rats and their infected fleas. As the rat prefers traveling by ship to most other means of transportation, so plague is generally ship-borne from port to port and from town to town. Note how it has traveled along the western coast of North and South America.

In addition to the protection of the United States by treatment of ships for quarantinable disease we have in the medical examination of immigrants a further safeguard against other diseases and conditions that make for ill health and inefficiency. Here cases of communicable and mental disease and conditions that would make people become public charges are certified to the immigration official. During the fiscal year 1912 the following cases from certain diseases were certified in the whole United States: Trachoma, 1906; tuberculosis, 122; insanity, 57; syphilis, 118; gonorrhoea, 222.

In conclusion, it is well to remind ourselves of a few things: First, we have had all, and still have, some of

these six quarantinable diseases here in the States. Cholera and yellow fever, while they made severe visitations in years past, are not with us now. Plague, we are about to be rid of on the Pacific coast. Smallpox, typhus fever and leprosy are endemic. Typhus fever, often in a mild form, is being reported from our large cities. In New York city for years it was known as Brill's disease. Leprosy was present (reported) in 16 states to the number of 146 cases January 1, 1912. To protect ourselves against quarantinable diseases we must not only prevent their entrance at our ports but fight what we already have.

Second, we may obviate the danger of epidemic from quarantinable diseases by putting our house in order, cleaning off our doorstep, cellar and backyard if you please.

Cholera spreads easily by flies, "Swat the fly." Destroy their breeding places and protect food from them.

Yellow fever is disseminated only by the yellow fever mosquito. No Aedes calopus, no yellow fever.

No unvaccinated people, no smallpox.

No "graybacks," no typhus fever.

Report our cases of leprosy to the health authorities so that proper sanitary treatment may be administered.

We must quit associating with the rat. Rat-proof our dwellings, warehouses and wharves. Clean out the backyard junk. Quit feeding the rascal and kill him when we can.

By taking precautions against outbreaks of quarantinable disease we fortify ourselves against other diseases, especially those that may be insect-borne, as tuberculosis, typhoid fever, enteritis, etc., and, in addition, make our home and country more cleanly, more valuable and more beautiful.

WORK OF THE LABORATORY OF THE STATE BOARD OF HEALTH.*

By F. A. Coward, M. D., Columbia, S. C., Director of Laboratories.

The laboratory of the State Board of Health was opened July 1st, 1909, by an order of the Executive Committee of the State Board of Health, which Board, as you are all aware, consists simply of the S. C. Medical Association. Authority for equipping and opening the laboratory was derived through the terms of the appropriation bill for the year 1909, which terms have been continued through the appropriation bills for the succeeding years up to and including 1913.

A sum of money is appropriated which is to be expended for the suppression of infectious diseases. Such being the case, no work other than that directly aimed at the suppression of infectious or communicable disease can be legally taken up in the laboratory.

The Executive Committee, therefore, outlines the scope of the work and is responsible to your body for its proper performance. The director of the laboratory is responsible to the Executive Committee for the immediate conduct of the laboratory and the proper performance by himself and his assistants of the work assigned to them.

ORGANIZATION.

The working force of the laboratory consists at present of a director and an assistant. Four microscopists are also attached to the laboratory force. Two-fifths of the assistant's salary is paid by the Rockefeller Hookworm Commission, which commission also pays the entire salary of the four microscopists. The director is a physician, whose entire salary is paid by the State. The assistants in the laboratory are not

medical men, but are more or less proficient in microscopic work, the assistant being fully competent to carry on the work in case of absence of the director. A colored porter who shares his time with the other department of the offices in Columbia, is also attached to the laboratory. In addition to assisting with animal experiments, he looks after the test animals and acts as mailing clerk. Specifically enumerated, the work done by the laboratory is as follows:

Routine examination of sputum for tubercle bacillus, or for other pathogenic organisms when requested.

Examinations of smears and swabs for the diphtheria bacillus or other organisms, by culture or otherwise.

Examinations of blood for the Widal test, for malaria, and for blood infections.

Examinations of feces for any designated intestinal parasites.

Examinations of animals for evidence of rabies, either microscopically or by inoculation.

Occasional miscellaneous examinations are made by special request, when such request seems reasonable and likely to lead to information or to give aid concerning the suppression of infectious disease.

It cannot be too strongly stated, nor too often repeated, that the only excuse for our laboratory lies in the suppression or control of infectious disease. This point is often overlooked by physicians who merely seek aid in the diagnosis of their patients' complaints as an aid in treatment. The latter is the function of private laboratories. We must bear in mind that the physician deals with sick people, but the Board of Health confines its attention to the well. The moment that a person becomes sick he belongs to the physician, the Board of Health then has no concern with him except to keep the

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well from acquiring his disease by contact or exposure to his infectious excretions.

So seldom do physicians realize these facts that it is only in rare cases that they report the existence of infectious disease in their practice to the State Health Officer, even though the laboratory findings indicate that the disease is one which is legally reportable. We have repeatedly made microscopic diagnoses of diphtheria, cerebro-spinal meningitis, and typhoid fever; and yet no report from the physician attending these cases ever reached the State Health Officer. Thus the main object of the laboratory is defeated. Physicians are also lax in giving information concerning specimens sent to the laboratory. The name, age, etc., and at least an outline of the clinical condition should always be sent, would be of great value to the laboratory workers, would promote accuracy in results, and would do much to promote a better understanding between the practitioner and the laboratory men. The microscope, like many other things in life, must be handled with common sense as well as technical skill. The oldest and most experienced laboratory men are very wary of reporting results of uncontrolled work, particularly in the absence of clinical information. In other words, it is the man who knows most about laboratory work who is most keenly aware of its fallibility and of the necessity for correct interpretation in co-ordinating apparently inconsistent results.

In addition to the tests enumerated, the laboratory prepares and supplies anti-rabies virus and typhoid bacterin, both of which are sent out only from the laboratory in Columbia, and only on request of physicians. Here again we have been unfortunate in not getting proper reports from physicians as to the results and complications attending

the use of our products.

The work has shown a steady increase since its inception in 1909. Last year over one-half of all physicians in the State sent specimens to the laboratory. We made over five thousand examinations, treated 150 people in the Pasteur department, and manufactured and sent out approximately ten thousand ampoules of typhoid prophylactic, the work showing an increase of 40 per cent. over that of the previous year. We expect an equal or greater increase for the coming year. Comparison of reports from other States shows that we are conducting one of the largest State laboratories of the kind in this country.

NEEDED EXTENSION OF THE WORK.

Many things that we should do are as yet left undone—for various reasons—expense being always the bugbear, of course. We would like to furnish our virus and bacterin in syringes; we would like to furnish all physicians proper sampling and mailing outfits for specimens. We would like to send all reports by telegraph at State expense, and we would like to have branch laboratories; *not in the towns*, which should maintain their own laboratories; but in selected rural districts. Some of these improvements we can promise for the near future, others can only come by a process of evolution. Meantime I feel safe in asking on the part of the Executive Committee your criticisms, suggestions and co-operation in improving the laboratory.

Being more or less isolated in our offices, we work largely in the dark, as to some of the best methods for accomplishing our aim, which is to help the practitioner suppress infectious disease. The laboratory is yours, not ours, and will be what you make it—neither water nor education can rise above its source, and while the director appreciates keenly the free rein which he has

been given by this Association and its Executive Committee in building up a going concern in Columbia, he feels that the laboratory has now come to be the biggest part of the State Health Department, and he asks your aid in making it an object of pride to us all, promising that the mistakes of the past shall be the guide posts of the future, and that sincerity on your part will be met with sincerity and earnestness on his.

SCHOOL SANITATION.*

By L. Rosa H. Gantt, M. D., Spartanburg, S. C.

School sanitation is as much a product of modern times as are electric lights, telephones, wireless telegraphy, and the automobile—it is the result of the public school system and is made necessary by the condition of modern civilization. It would have been impossible to apply it to conditions existing in the log school house in which was begun the education of some of the oldest members of this body. The rural school period extended only between the time of working and the time of gathering the crops; the unchinked spaces between the logs and the unglazed open windows gave ventilation and light to the pupils, the seats were pine slabs and no artificial heat was needed. Living close to nature, among forest trees in fresh pure air, near springs of fresh water, the child of the past grew to manhood in spite of the hard benches, under the unspared rod and stern discipline of the school master. The finished product of the old method was for the most part an anemic, stoop-shouldered, undeveloped specimen of manhood or womanhood, learned in the arts and sciences but often physical and nervous wrecks, un-

suited for the stern battle of living, this was so true that even at the present day we associate great learning with defective physical development. It is a wrong system of education that ignores the bodily well being of the pupil and is willing to sacrifice physical upon the altar of mental growth. The problem of human life and development is such a complex one that it is impossible to say just how far wrong educational methods, defective school sanitation and the lack of hygienic teaching are responsible for the development of the stoop-shouldered, narrow-chested, near-sighted, nervous, anemic type of scholar. He is however the product of the educational system of the past, and it matters not how deep his learning, how high his moral training, nor how lofty his ideals, from a physical standpoint he brands that system as defective in that it failed to pay the proper regard to the physical growth of the child placed in its custody. The objects of school sanitation and hygiene should be to correct the errors of the old system. Longer school periods, more congested population and present day civilization make imperative a scientific study of sanitation in connection with the schools of the country. About one-fifth of the entire population is under instruction in the schools at a period of life when good health and its preservation are matters of the highest importance. In the limited time given me I can not hope to do more than outline a few general principles governing sanitation in our public schools.

The location should be well back from the road or street in a neighborhood free from noxious and offensive surroundings or noise and should not be near a railroad. The site should be capable of thorough drainage, it should also have a supply of good fresh drinking water. The school building should

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be planned by an expert with due regard for the needs and for the accommodation of the normal school attendance. A minimum of 15 square feet of floor space for each pupil should be insisted upon. Under the school law of South Carolina, all schools and colleges are required to provide proper methods of ventilation, sufficient to furnish each pupil 3,000 cubic feet of fresh air per hour. The light should, so far as possible, be admitted through a window so that it will come from the left of the scholars, all other windows should be for ventilation only, and should extend as near to the ceiling as possible and should be at least four feet above the floor.

The modern school house has done away with the seats and benches and supplanted them with tables and chairs, with due regard to the proper proportion maintained between table, chair and child; the height of the table should be such that would permit the child to place both forearms on the table without raising or lowering his shoulders.

The question of heating is a vital one; for years past a rusty stove placed in the center of the room in a box of dirty sand which was used as a spittoon and waste basket gave uneven heat to the pupils, those nearest the stove would roast while those far away froze; to make the room warm as possible the doors and windows were kept closed, preventing ventilation from maintaining an even temperature. The lack of proper ventilation and heating is a sanitary crime, even in the schools of the present time, colds, influenza, pneumonia, and tuberculosis are spread by such conditions. In the country schools, hot air, steam and hot water are impractical but a supply of fresh air may be introduced into the room by means of a well regulated, jacketed stove, with inlet and outlet to provide

for ventilation; a temperature of 65-68 degrees should be maintained during school hours, provision should be made for moisture, to supply the loss involved in heating the air to a sufficient degree to insure comfort.

The privy in every rural school should be of the type designed by Drs. Lumsden and Stiles and should be at least forty feet from the school house, such as are required by the health laws of South Carolina.

"The old oaken bucket" should be relegated to the realms of poetry and fiction and should be supplanted by a driven well with pump and cement cover. In towns and cities the water should be drawn from the city water works and supplied to the pupils through sanitary drinking fountains.

All doors and windows should be provided with screens of 12 mesh wire. The walls should be of some light-reflecting color, yet restful to the eye, preferably a light, greenish-gray, nearly white.

So much for sanitation of school buildings and grounds, but just as a man's house does not constitute his home, the school house does not constitute the school and while rules of construction are sanitary necessities the best school sanitation is after all, the high ideals, beneficial rules, exercised and taught to the growing child that he may know and carry to coming generations knowledge that will benefit others that come after him. We know that the common drinking cup is a means of carrying diphtheria, tuberculosis, etc., why not have the schools teach this fact by banishing the common drinking cup from the school rooms, thus impressing upon the minds of the children the transmissibility of disease by contact, abolish the common pencil box, teach the children to keep their fingers out of their mouths, not to bite each others' candy or fruit, not

to use each others' gum or whistles and to put nothing in their mouths save food and drink. They should be taught not to eat fruit that is not peeled, washed, nor cooked, not to eat without washing the hands and not to eat food that has been exposed to flies. Teach them to keep their hands, faces and nails clean, to observe oral cleanliness and teach them habits of personal hygiene and to avoid the habits that spread the contagious diseases among the pupils of our public schools. The value of fresh air, the need of ventilation in sleeping apartments, the prime importance of healthful exercise to ward off disease and promote healthy, vigorous growth should be impressed upon the children. The teaching of the value of clean habits, the part played by insects in the transmission of disease, the effects of dissipation and the methods of contagion of the preventable diseases are well within the province of the school teacher. In the public school system there is still too much rigidity, too many stiff, hard seats, too much fatigue, too many exercises to be prepared after school hours, too much a continual grind of mental work without proper relaxation in systematic physical exercise for the growing child. There is not enough variation in the monotony of teaching by precept, not enough nature study, not enough manual training, not enough practical demonstrations on the subjects taught, and in time many pupils, instead of associating the useful activities of school life with feelings of pleasure come to regard them as irksome, then comes a faulty adjustment between the mind of the pupil and his situation, resulting in nervousness, dissatisfaction, inattention, and often truancy. In the primary grades, the sense of touch, which is known to be the best developed faculty in infancy, should be utilized more

and the eyes should be spared as far as possible. Lessons should be taught in the "play attitude" without stress on the child and without exacting active attention or other fatigue producing activities. Children learn the every day things of life that are within their experience, such as tying knots, lacing and buttoning shoes and clasping locks, they can learn to know circles and squares first by the feel, to arrange in order and to do an hundred things educational in their nature. The school of Dr. Maria Montessori in Italy, established upon this principle, more in keeping with the true laws of proper physical development of childhood is attracting the attention of the civilized world. It is necessary that every teacher in the public schools should have some general knowledge of the hygiene of the eye and ear and that they understand the operation of these organs. My observations have shown me that a child with defective vision or hearing may sit for several terms of school life under the daily tutorage of the average teacher and the defects remain unnoticed and the unfortunate child becomes branded a dullard. It is easy enough to determine whether a child can see, hear and breathe normally and yet throughout the schools of South Carolina today the teachers fail to note defects in these particulars so vital to the health and learning capacity of their pupils. Every teacher should possess sufficient general knowledge of hygiene to detect the nature of defects regarding the pupil's progress. She should be familiar in a general way at least with the symptoms, causes and consequences of the so-called school diseases and should know what preventive measures must be taken to prevent the outbreak and spread of epidemics and infectious diseases. She should have the ability to handle the more ordinary types of accidents such

as nose bleed, fainting, etc., and should have a "first aid to the injured" knowledge of the more serious accidents in order to care for them until the physician arrives. Above all however a possession of a general knowledge of the growth and development of children is essential that in the zeal to improve the child mentally she does not physically overtax him.

Professor Swift has said that "half an hour's observation of pupils at their school work will convince one skilled in interpreting nerve signs that nervous disorders have become so common as to menace our national health and the significance from this from an educational standpoint has been too generally ignored." It is needless to say that the laws of sanitation and hygiene in a sanitary school house can never be taught or enforced save by a thoroughly hygienic and healthy teacher. The teacher's profession is one which demands definite hours, consecutive days, exposure to weather, physical strain and high nervous tension. The school room is no place for a nervous wreck, a victim of tuberculosis or one suffering from any communicable disease or physically incapable of measuring up to the duties of the teacher's position. More attention should be given to the comfort of the teachers in the arrangement of our school houses. Enthusiasm, reserve force and quiet nerves are essential assets to every successful teacher. Prolonged periods of class room work produce fatigue toxemia with its inevitable physical lassitude and nervous irritability. The health of both pupil and teacher demands sufficient intervals of relaxation to allow for the elimination of the fatigue toxins. In conclusion I can but impress the fact that the question of school sanitation is so thoroughly technical, scientific and medical in all its phases that the co-operation of the

pedagogue and the physician is imperative. Sanitation is and should be the special study of those who devote their lives to the preservation of health—the physician. The work of the teacher is distinctively that of child training and while we may be able to lay down general rules and directions for their guidance in the preservation, protection and training of the children in the schools of the State, in their practical application the problems presented are too complex for those not specially trained in sanitary and medical affairs. I can only reiterate what I have said before this body on a previous occasion, that there will be no real progress in school sanitation in South Carolina until the sciences of pedagogy and medicine are linked by the passage of a law providing for the medical inspection of our school children.

HOME SANITATION.*

By Dr. Wm. Egleston, Hartsville, S. C.

It has been no easy matter to prepare a paper on Home Sanitation. It is bound up so closely with Personal Hygiene on the one hand and with Municipal Sanitation on the other that very little is left which deals with the home exclusively. However it is certain that any system of sanitation, and particularly all municipal sanitation, must be built very largely upon the individual home and its condition. Also that system of sanitation which is the most successful is the one which engages the earnest co-operation and assistance of the individual householder.

In dealing with this subject one must take up first the house itself, and our first consideration is:

Sanitary Construction: Sanitary construction involves much which is

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purely technical and which in a paper of this kind we may pass over. It has been suggested that the physician might set an excellent example of sanity and of comfort in house construction in the shape of his own dwelling. In our own climate wood seems the material in commonest use for construction, though brick is fast growing in favor and the brick-veneered structure has many points which commend it to favor—chief of which is the large air space between outside and inside wall. Our Southern houses differ in one particular from those of the North, I am told, by making no provision as a rule to exclude rats and mice and the common house vermin. This is said to be easy of accomplishment and inexpensive. Considering the damage done by these pests, not to mention the probability of the future disclosing their activity in disseminating the common communicable diseases as well as Bubonic plague, this is a matter which merits attention. Within the house the weight of authority is for hard plastered walls and ceilings painted or calcimined (never papered) as most easily cleaned and sanitary. Also it is recommended from a sanitary standpoint that the floors be of hardwood uncovered except with easily removable rugs. The roof of a house has much to do with its comfort and some insist with its healthfulness. Authorities recommend the old shingle roof as best meeting requirements from both angles. It need hardly be pointed out that a house of this construction indoors is susceptible of renovation or disinfection with the best of all germ destroyers—paint or calcimine.

House Furnishings: There seems to be a tendency among persons of good taste towards simplicity in house furnishings. Iron bedsteads, rugs, few draperies and sanitary furniture seem to be the rule now. Blair, in his Pub-

lic Hygiene, to which work I am largely indebted, is of the opinion that we are rapidly learning from the Japanese and other orientals the beauty of simplicity. This he feels sure contributes both to the sanitary conditions, and to the comfort and health of the housekeepers in giving less cause for drudgery and more time for rest and recreation. He deprecates the common habit of spring and fall house cleaning, and predicts its rapid disappearance with the advent of bare floors and walls, simple furniture and the vacuum cleaning apparatus—all tending to maintain a house of constant clean and presentable appearance.

Grounds Surrounding the House: All houses should be located with a view to good drainage, and especially rapid drainage for storm water. The gutters should be especially looked after, for choked down-spouts as well as sagged gutters have been found in my experience to be a common source of mosquito breeding. The rain barrel should not be allowed, for it is certain to be neglected and to become the breeding place for mosquitoes of all sorts—the anopholes not excepted. For the same reason cellars should be carefully protected from water collection, and since they harbor the mosquito summer and winter, should be thoroughly fumigated to destroy them twice or more a year. In the matter of vegetation there should be a limit to the number of the shade trees and their proximity to the house, as tending to interfere with the sunshine. Vines and all heavy dense vegetation are to be discouraged as unsanitary and offering shelter for mosquitoes and other insects. Front yards and lawns are generally kept clean and sanitary for reasons of pride or expediency. The back yard should be bare and kept clean of all cans and bottles and other water-holding, mosquito-breeding containers.

It has been suggested that for scraps which escape the garbage can and for the destruction of other odds and ends a land turtle is a fine scavenger. It is in my experience a difficult thing to arouse much pride in the back yard and it is made a matter of rigid rule and inspection in my own town.

Domestic Animals: Most of our towns and cities have banished the hog from their limits. In the matter of domestic animals, appurtenances of the farm and the country home which have grown into our town and city life, it can only be said that no attempt should be made to keep them except where ample space is available. Furnishing the material for fly breeding, provision must be made for the weekly collection of all manure, and its safeguarding against fly propagation in fly-proof containers. Laws bearing on this sanitary necessity and *vigorously enforced* will entail so constant a burden and so large a cost that it will generally result in the giving up of the cow in towns and cities as too expensive a luxury—and occasionally also the horse for like reason. Indeed the horse seems likely to become less and less a municipal problem as the automobile supplants him for both pleasure and business. Cats are said to carry contagion at times and doubtless do. They are poor pets and useless in rat-proof houses. Dogs are a constant source of danger from rabies and I hope to see the time when they can be kept, in our towns and cities at least, only under the requirement of muzzling the year round. It is only to mention the family cow to suggest the opportunities for tubercular infection in a family, and to remind us that the best and purest milk is not to be found on the farm or at the old home, but in cities such as Washington and New York where it is offered for sale under stringent rules insuring its purity and its wholesomeness.

Heat and Ventilation: The open fireplace gives us the maximum amount of ventilation with the minimum amount of heat for the fuel consumed. Ideal then as a ventilating arrangement and indispensable as an accessory heat for our variable Southern climate, it should be in every room of our homes. Tighter construction of our houses would also increase its heat efficiency markedly. Heating stoves which have largely superseded the fireplace give the maximum amount of heat with the minimum amount of ventilation. The ordinary trash burner is excellent for quick heat but undesirable for steady heating in the home. The hot air furnace is a compromise between the two and when properly constructed and run is a very desirable method of heating for the average home. Hot water and steam heating are becoming more common in our houses. Hot water heating is open to the grave objection of slowness. Steam heating is open to the equally grave objection of being incapable of regulation except to a minor degree. Both are open to the still graver objection of making the matter of ventilation in connection with all heating by radiation a very difficult one. Interesting papers have been written on this subject and the important part which humidity plays in the matter of heat and ventilation in relation to comfort. Attention is called to the fact that the registered temperature of a room with radiator heat will oftentimes not supply the sense of comfort to be expected. This is found to be due to the low relative humidity within the room. The average humidity within doors in New York city has been placed at about thirty per cent. as against seventy per cent. out doors. Such a striking contrast it is reasonably pointed out must be a violent strain on the upper air passages and is held to account for much of the pneumonia and

allied troubles of the winter season. In the old days of open fireplaces frost on the window panes in winter was the usual sight. In this day of heating by direct radiation it is not seen—a sufficient evidence of the indoor dryness. I believe that in this State a common mistake is made of regarding our climate as largely a summer or warm one. Our houses have evidently been constructed in the past on this theory. It will be found that quite seven months require heat in our rooms, at least for some part of the day, and for the children's rooms especially. Much comfort would be secured and doubtless much sickness would be avoided if we built our homes with a better regard for the trying winter months, and provided them not alone with sufficient open fireplaces but with a general heating system for the real winter.

Water Supply: Municipal water supplies in this State guarantee to the consumer a constant pure and palatable water. In homes not so fortunately supplied it can only be urged that the water used be submitted to the State chemist at regular intervals for examination. It goes without saying, of course, that artesian water is preferable where obtainable, and that driven wells are to be desired from a sanitary standpoint as being less liable to surface contamination. A very reassuring indication is the general interest manifested in the purity of drinking water on the part of the average citizen. It probably is the one sanitary matter which arouses widespread interest.

Sewerage: Municipal sewerage works make a simple matter of this problem for the home fortunate enough to possess connection therewith. It should be required in every town and city that residences within two hundred feet of a sewer be connected thereto. Not only for the home itself but for the equally important servants arrange-

ments. It is probable that the importance of sewer gas as a causative factor of sickness within the home has been over emphasized, but it is far from certain that this is so and our State should have certain plumbing regulations strictly enforced. When septic disposal systems are used in connection with the home arrangements two things are absolutely requisite: First, that they be installed under expert direction, and second, that they be maintained at the highest state of efficiency. Where conditions compel the use of the privy there can be no improvement made on the fly-proof sanitary construction so well illustrated in all pamphlets dealing with the hookworm and with rural sanitation. For the collection of both the solid and liquid excreta nothing will surpass the large galvanized coal scuttle placed on a platform closely under each seat. For excreta from the sick room there should be made special arrangements for collection, disinfection, screening and disposal. The custom of burying the excreta on the premises is pernicious in the extreme and certain to give trouble. It should be hauled off to a distance and plowed under or disposed of under sanitary conditions.

Screening: An excellent indication of the widespread interest in things sanitary and hygienic is illustrated in the almost universal custom of house screening. Besides being a most excellent precaution against disease, fly-borne and mosquito-borne, it ministers in a wonderful way to the comfort of the home. The kitchen should be especially well screened and in this connection I would suggest the additional safeguarding of this part of the house by screening the back porch on which the kitchen usually opens. The ordinary galvanized wire will last about ten years under average wear and tear. The common mistake is made of using

too coarse a mesh, and thus admitting small insects as well as young mosquitoes and flies. The State law requires 12 mesh for school screens—a 16 mesh is better.

The Sleeping Porch: The sleeping porch is a part of the modern home and is being constantly added to the older homes. Its provision should be encouraged by the profession as furnishing excellent adjunct treatment for many ills other than those of a tubercular character. It should be well screened. A word might be said here about using the sleeping porch for the very young. A child too young to realize the sense of discomfort and to give immediate and intelligible expression of this discomfort should not be allowed to sleep on the porch or in the open.

Room for the Sick: In closing, I want to make a plea for accommodations in every home devoted to the care and comfort of the sick. With our increasing prosperity, and with our decreasing families a room can well be set aside for this purpose in most of our homes. A room to which every case of sickness can be immediately removed, contagious or not, where the obstetrical case, the typhoid fever case, the case of tonsilitis and every case of sickness can be taken out of the daily life and activities of the home and properly cared for. Every general practitioner will bear out the statement that a room of this sort will simplify the treatment of disease and multiply the chances of recovery. It can be oftener arranged for than is done and in that it removes the dangers of infection, and takes out of sight the many distressing features of all illnesses, for the rest of the family, it is a real blessing. In cases of communicable diseases it is a God-send to all concerned, and not the least attractive feature is that it makes the rules of quarantine acceptable and enforceable by entailing a minimum of

hardships and discomfort on those not ill.

THE RELATION OF DOMESTIC ANIMALS TO THE PUBLIC HEALTH.*

By Dr. G. McF. Mood, Charleston,
S. C.

From a public health standpoint, domestic animals include animals of any kind with which the human race more or less constantly come into contact, and with which they are more or less intimately associated. The most important are:

1. Dogs and cats.
2. Horses and mules.
3. Cows and sheep.
4. Rats, mice and other rodents.
5. Hogs.
6. Chickens.
7. Various wild animals in captivity.

While it has been recognized for years that these various animals suffer from diseases, often in epidemic form, most of which diseases always remained confined to them, never spreading to the human race; such diseases as hog cholera, swine plague, chicken cholera, etc., within recent years the fact has gradually been borne in upon us that these very animals at times not only do suffer from diseases similar to human diseases, but further, that they may act in various instances in spreading such diseases to the human family, either directly by contact, or through the medium of biting insects; and still further, that through insects attracted by them, strictly human diseases may be spread. It is to this relation especially that I wish to briefly call attention.

Of the domestic animals, those which are the closest companions of man are the cat and dog; I think it would scarcely be an exaggeration to state

*Read in the Symposium on Hygiene and Preventive Medicine before the South Carolina Medical Association at Rock Hill, S. C., April 16, 1913.

that the number of these animals in any community would about equal the number of human beings. These animals are looked upon as harmless, and fortunate it is for us that most often they are so. Both of these animals suffer, however, naturally from hydrophobia, and are capable of transferring the disease to man by biting, or by the entrance of the saliva into an open wound. On account of a natural resistance, protection from clothing, etc., the disease develops in only 16 per cent. of untreated, infected human beings, but this 16 per cent. represents an equivalent mortality, for the disease is as constantly fatal in man as in the lower animals. It is said that in Australia the disease never occurs, owing to rigid quarantine regulations governing the importation of dogs.

The *Taenia Canina*, a short tapeworm, is occasionally found in man, infection occurring from contact with dogs and cats harboring the parasite. Again, *Taenia Echinococcus*, for which the dog is a host, is found not infrequently in man, the disease occurring in the viscera, and especially in the liver of man, three-fifths of the cases occurring in this organ as hydatid cysts. Man and sheep are the intermediate hosts, infection taking place from eating food contaminated with dejecta containing ova. Horses and mules suffer from glanders, which disease is readily transferable to man. Those affected are most often hostlers and drovers, infection in these occurring most frequently, from the entrance of the nasal discharge of the animal into an open wound, producing primarily a local lesion, from which a general infection may rapidly result; or it may, as in the horse, run a chronic course. In man the mortality is 60 per cent.

Tetanus exists principally, owing to the almost constant presence of the bacillus in the intestinal tracts of her-

bivorous animals, the organisms forming spores shortly after being voided with the feces and in this form are constantly found in the manure of these animals, and in soil enriched with it. It is from contact with this enriched soil that human cases most often develop; through punctured or lacerated wounds contaminated with it.

Cows and sheep are responsible for the occurrence of a number of diseases in man, the most frequent probably being anthrax. While this disease is not uncommon in various sections of our own country it has never here become the scourge which it has been for many years in France, Russia and especially Siberia, in which latter country it is known as Siberian Pest on account of its constant ravages. Many cases develop in countries distant from these, most often in those whose occupations compel them to handle, and breathe in the dust from, wool of diseased animals.

The cow is the intermediate host of the *Taenia Saginata*, or beef tapeworm, the organism imbedding itself in the muscles of the beef, which is spoken of as "measly beef;" man acquiring the disease by eating this measly beef when insufficiently cooked. Being the true host of this parasite, the mature tapeworm is found in his intestinal tract after such infection.

Probably the one disease transferable by the cow, of greatest interest to us, is tuberculosis. At the International Congress on Tuberculosis, held in London in 1901, Koch expressed the opinion that bovine tuberculosis is not communicable to man. Ravenel and many others opposed this view, and cited cases in support of their contention. The subject is not yet satisfactorily or definitely decided, but there is much evidence in support of the opinion, that while bovine tubercle bacilli rarely produce tuberculosis in the adult, it is

an organism to be reckoned with in the disease occurring in childhood—Park estimating that it enters as a causative factor in about 10 per cent. of the cases of this disease in children. The disease is communicated to children most often through the medium of milk and butter, though flies and dust, when diseased cows are in the immediate vicinity, must be considered as possible factors in its transmission. It is considered unnecessary that the cows udder be diseased—foci in any of the tissues, resulting in contamination of her milk.

Actinomycosis, or lumpy-jaw, is another disease of cattle, communicable to man, occurring through infection of an open wound, through the mouth or pharynx, and through the respiratory and digestive tracts. Fortunately the disease is uncommon in man.

Another disease, due to the eating of the flesh of the diseased animal, is what is spoken of as "true meat poisoning." This form of poisoning is due to *Bacillus Enteretidis*, and in every instance the animal is diseased at the time of slaughter. The disease occurs in cows as a true septicemia, characterized by a profuse diarrhoea, and is communicated to man through, not only fresh meat, but also dried meat, sausages, etc. Small epidemics of this disease are not at all rare during our warm months.

One of the most important animals from a public health standpoint, is the hog. Besides being a decided nuisance in thickly settled areas, it harbors parasites, and suffers from diseases which may likewise affect man. The most important of these is probably Trichiniasis, due to the eating of "measly pork" when not cooked at a temperature high enough to destroy the trichina spiralis, imbedded in the muscles. Man, the hog and the rat are the hosts of this parasite. Although we continue to see, from time to time, re-

ports of cases of this disease, it is undoubtedly becoming more and more rare, owing to the proper inspection of pork at the time of slaughter in a large number of communities.

Again, the hog is the intermediate host of the *Taenia Solium*, or pork tapeworm, which organism, like the above, being present in the muscles of the pig, gain entrance to the human stomach, are passed on without injury to the intestines, where they mature to the adult worm which is so well known to all of us. This disease, like the above, depends for its eradication, upon efficient inspection of all pork at the time of slaughter.

Another disease, in the spread of which the dog has only recently been incriminated, is human Trypanosomiasis, or sleeping sickness of various tropical countries, and especially sections of Africa. For many years the link between the occurrences of cases among new arrivals, in areas uninhabited for years, has been wanting. This missing link has recently been supplied by the finding of the human parasite, not only in several wild animals, but—which is of great importance—in the native dog. This disease is of casual interest to us only, as it develops solely in tropical countries—being transferred by a tsetse fly, found only in the tropics. Such cases as we may chance to see will all be importations. One interest attaches to this disease, however, its many points of similarity to pellagra. Not by analogy alone may we reason that this disease, too, is a parasitic one, transferrable by some insect or insects, but a late report of Drs. Sambon and Chambers indicate most strongly the parasitic nature of this disease.

It is scarcely necessary for me to refer to the important, if not essential role, played by rats, in the importation, maintenance and spread of Bubonic Plague. The rat is extremely suscep-

tible to this disease suffering, not only from the acute rapidly fatal form, but often from a chronic form, in which the plague bacilli may remain dormant in its tissues for months. On account of the cannibalistic habits of the rat, and the rapid transfer of the disease to others by fleas, the disease rapidly spreads among these and other rodents. There have been reported epidemics of the disease among rats, months prior to the development of human cases in a community. The disease is spread to human beings by fleas, flies and other insects, and by contamination of food stuffs by diseased rats.

But one disease of birds is known positively to be communicable to man; Psittacosis, a peculiar disease of parrots, producing in man a very fatal form of pneumonia. This disease does not develop in parrots in our country, unless they be brought into contact with imported diseased birds, human cases here likewise resulting from contact with these.

Only within the past few months, a species of biting fly—the Stomoxys Calcitrans—has been definitely proven a carrier of the virus of acute anterior polyo-myelitis. While it is possible that the disease may be spread otherwise, it has been established beyond doubt that the disease can be spread through the bite of this fly.

There have been many reports, suggestive of domestic animals playing an important part in the occurrence of the disease—viz the occurrence in various places, just prior to outbreaks of the human disease, of a somewhat similar affection observed in dogs, cats, hogs and other small animals, characterized by paralysis of the hind quarters. Just what relation may exist between the two diseases is unknown, but when we recall the facts, that infantile paralysis occurs with greatest frequency, and in largest numbers in rural districts,

where the stomoxyx fly, a proven carrier of the disease, and these lower animals exist in larger numbers than in cities, a possible relation cannot be lightly put aside.

There is no intention, in this paper, of relegating to a place of secondary importance, the various truly human diseases, communicable by flies, pet animals, or through food products of domestic animals; for the writer realizes fully the importance of fly breeding in ill-kept cow and horse lots and stables, and of insanitary methods of handling food products of animal origin. The intention has been, rather, to direct attention to that phase of this mutual association to which, I think, insufficient attention has been given in the past.

Public Health

REPORT OF THE STATE BOARD OF HEALTH.

By Robt. Wilson, Jr., Chairman, Charleston, S. C.

The President and Members of the House of Delegates:

The general health conditions prevailing in South Carolina have changed but little since our last report. At the present time smallpox, measles and German measles are the most widespread epidemic diseases, but all occur in mild form. During 1912 the State Health Officer investigated reports of smallpox in twenty localities, the chief centers being Anderson county, where 400 cases have been reported, and Richland county, in which there have been 150 cases.

Scarlet fever occurred in only four localities, and since January 1st no cases have been reported. Epidemic cerebro-spinal meningitis during 1912 made its appearance in Charleston, Spartanburg and Cherokee counties, but did not spread epidemically in either locality. In January of the pres-

ent year cases were again reported in Aiken, Chester, Calhoun, Marlboro, Newberry and York counties, but no cases have been heard of since March 1st. The State Health Officer was able to examine the fluid obtained by spinal puncture from twelve cases, of which seven showed the meningococcus, of Weichselbaum, and the pneumococcus, and four were doubtful. In the four doubtful cases the fluid was not examined until some time after withdrawal, so that very probably some degree of bacteriolysis had taken place. It is highly desirable that the fluid be smeared and stained as quickly as possible after it is drawn. Out of sixteen cases four received Flexner's serum, all of whom recovered, while the twelve untreated cases died. The four cases which received the serum were positive for the meningococcus. It is interesting to note that the case of pneumococcal meningitis proved very rapidly fatal.

The State Board of Health has on hand a supply of serum and will be glad to distribute it when needed.

The work and usefulness of the laboratories of the State Board of Health continues to grow. In 1912, 5,640 examinations of blood and sputum were made; 149 heads of rabid animals were examined, and 245 patients treated; 11,552 ampules of typhoid bacterin were distributed; diphtheria antitoxin to the amount of \$6,134.60 was distributed; 57,610 vaccine points were sent out.

The State Health Officer has been most active in carrying on the work and in extending the influence of the State Board of Health. Besides investigating and controlling epidemic diseases he has given lectures before the Civic Leagues of Spartanburg and Lake City, lectured on Public Health at Dillon, investigated the sanitary conditions at Allendale, investigated the

drainage of land, Ridgeland, investigated the sewerage system of Ridgewood Park, investigated the sanitary conditions of Blackville, lectured to the public school children at Lexington, investigated the water supply of Florence, investigated the sanitary conditions of Clio, inspected Union Bleachery at Greenville, inspected the fish pond at Bishopville, inspected the jail at Sumter, addressed the Farmers' Institute at Bennettsville, lectured on sanitation at McColl, lectured on typhoid fever at Camden, investigated Taylor's pond at Summerville, investigated the sewerage disposal at Fairfax, investigated the sewerage system at Calhoun Falls, inspected certain sanitary conditions at Greenville, inspected the bottling works at St. Matthews, besides conferring with various boards of health and other official bodies.

It is gratifying to announce that for the first time South Carolina will be included in the morbidity reports of the U. S. Public Health Service, thus receiving recognition for greater efficiency in reporting contagious diseases. We earnestly hope that every one of you will do his utmost to make these reports more perfect still. The State Health Officer has sent to every member of the medical profession cards upon which are specified the reportable diseases, which are to be used to obtain statistics from the unincorporated districts. You are requested to fill out these cards and return them as soon as diagnosis is made. In accordance with the act of 1912, informing the State Board of Health to form rules and regulations to govern the sanitation of railway cars and public carriers, schools, jails, etc., rules and regulations have been promulgated already, applying to jails, railway coaches, school houses and infectious diseases, and others will be drawn up and promulgated with all possible dispatch.

Society Reports

CLARENDON COUNTY MEDICAL SOCIETY.

The March meeting of the Clarendon County Medical Association was held at Summerton in the office of Dr. Thes. Davis with a fairly good attendance.

After the reading of the minutes and the adoption of same the subject of gunshot wounds was discussed in detail and many interesting cases were mentioned. One case with abdominal complications mentioned by Dr. Stukes was especially interesting. Dr. Geiger also mentioned a case of stricture of the urethra in which the bladder was enormously distended, resulting in the tapping of the bladder and the removal of about two quarts of clear urine. The patient was later sent to the Roper Hospital in Charleston, where operation was made by the suprapubic route with good results.

Drs. Sep Jordan, of St. Paul, and T. R. Littlejohn, of Pinewood, were nominated and unanimously elected members of the Association.

The subject of the J. Marion Sims monument was then taken up and Dr. Todd was asked to write an article for the county paper asking the ladies to take part in this. The secretary was asked to write each member and ask them for a contribution to this undertaking.

The Association extended an invitation to Dr. Woods, of Florence, to be with us at the next meeting and read a paper on eye, ear, nose and throat complications.

After completing the business of the Association for this meeting the Summerton division of the Association served a most delightful salad course. This was enjoyed by all and it gave a more social atmosphere to the meeting.

W. SCOTT HARVIN, M. D., Sec.

DARLINGTON COUNTY MEDICAL SOCIETY.

The citizens of Hartsville on March 11th entertained the Darlington County Medical Society with a fish stew on the banks of Black Creek. The meeting was made doubly interesting on account of the novel entertainment furnished by the local doctors. There is little doubt that the combined social and scientific meeting is in the long run conducive to the best interest of the county medical society.

The officers of the Society are: T. E. Howle, Hartsville, Pres.; W. A. Carrigan, Society Hill, Sec.; J. W. Wilcox, Darlington, Treas.

The official report to the State Medical Association showed fourteen members in good and regular standing.

T. E. HOWLE, Reporter.

SPARTANBURG COUNTY MEDICAL SOCIETY.

The Spartanburg County Medical Society met with a fairly good attendance. Several interesting clinical cases, two of which had been treated with streptococcic serum were reported by Drs. Sparkman, Jefferies, Lindsay and Norman. In lieu of a paper, Dr. W. A. Smith read a letter sent in 1840 by a physician to a planter in Union county prescribing treatment for a slave woman on his plantation. The letter and treatment were very unique. Dr. Lancaster suggested that in prescribing the ready made pills and tablets of today we are no wiser than was the old physician with his duplication of remedies and drastic methods.

A general discussion of the absurdity of using antiphlogistine in pneumonia was entered into and Dr. Jefferies stated that we need to go back and study on *materia medica* and suggested asking some one competent to do so to lecture to the Society on this branch of medicine. The delegates reported a very interesting meeting of the South Carolina Medical As-

sociation. Dr. James R. Sparkman was elected censor to succeed Dr. J. R. Brown, who has withdrawn from the Society.

L. ROSA H. GANTT, Sec.

Current Medical Literature

THE STATUS OF THE CANCER QUESTION.

In looking over the programme of the meeting of the Congress of American Physicians and Surgeons, one is struck by the fact that papers on carcinoma or malignant tumors appear in nearly every section. Besides, one of the societies present devoted its entire time to that subject. When any one topic appears for discussion from so many different aspects it generally indicates one of two conditions. Either it is new and relatively infrequent, or else it is old and widespread. In this instance the latter holds true, and there is added the fact that as yet comparatively little has been done in the way of combating the condition. Consequently, the energies of hundreds of men are being expended in attempts to find the cause and to effect a cure whatever that cause may be.

What has been accomplished along either of these lines? Are we any nearer an understanding of the problem now than fifty years ago? It would seem that we are. The work of many indicates that there is what might be termed a precancerous condition, one that can be experimentally produced. To this, as one more link in the chain, can be added the evidence that chronic irritation is in many cases essential. Very recently Ryall has pointed out the frequency of cancer of the tongue in those who have had syphilis, over eighty per cent. giving a specific history. Exam-

ple after example has been added to the list of chronic irritative changes that precede the development of malignant disease. It will therefore be noted that at the above mentioned meeting much has been said concerning prophylaxis, and those toward whom this was mainly directed are the women, particularly those who have borne children. Many papers were also read the theme of which was the treatment and cure of cancer, and here comes up the question of diagnosis. Unfortunately, there has as yet appeared no method other than microscopical examination that has been of any assistance. Immune reactions with serum have been attempted, but have proved of no use. The blood has been examined for the presence or absence of many substances, but unsuccessfully. At present there is no way of telling what it is that one is dealing with. Although no means of early diagnosis other than the microscope is known, the outlook for the sufferer is not the gloomy one that so often obtrudes. Many cases of cancer can and have been cured. All sorts of schemes have been attempted, everything from a poultice of crushed violets to surgical interference, but it is the latter alone that promises anything. Even if the cause has not been found we must not feel that the outlook is hopeless. It may be that all kinds of parasites have been blamed, but what interests the patient is the method that will cure. Consequently, while the laboratory worker is busy with his research, the man in the fighting line must be constantly exerting himself to get his cases earlier, which means at a time when complete removal is possible. There seems little doubt that cancer is primarily a local condition and as such can be handled readily. To wait, however, means to court disaster.—Editorial *N. Y. Medical Journal*, May 10th, 1913.

PNEUMONIA PREVENTION.

The end of the winter, far from bringing a termination to the danger from pneumonia, in reality marks the beginning of the season when this disease becomes an extremely serious cause of increase of mortality. This is true particularly in large cities. In recent years this increase has become more and more marked and is all the more striking because of the decrease in deaths from other infectious diseases. Pneumonia has been aptly termed the "Captain of the Men of Death," displacing tuberculosis which for so long occupied that "bad eminence." The most important problem before the medical profession at present is the reduction of the death-rate from pneumonia. Considering the nature of the disease and the intense strain which it imposes on the heart, it is probable that the only hopeful outlook for any considerable reduction in pneumonia mortality is through the prevention of the disease. The prospect of a cure for it, in the popular sense of that term, according to *The Journal of the American Medical Association*, has grown less as we have learned more about the disease. While pneumonia is most frequent during the colder portion of the year it is not dependent entirely on low temperature. The disease occurs at all seasons and in all climates. It does not work its greatest ravages in the colder climates, but is rather rare in the cold of high altitudes and is almost never known to occur within the Arctic circle. In spite of all their suffering from cold, Arctic explorers escape this danger. Hence we must assume that cold acts in conjunction with some other factor in the production of the disease. Pneumonia is favored by lack of sunlight and it occurs among those who are much exposed to dust or who have to breathe the emanations from the lungs of other people. Catarrhal processes affecting the air

passage prepare the soil for the implantation of the germ of pneumonia. It is particularly a disease of city life and crowded living. With our present knowledge the prospects are hopeful for the control of pneumonia in the future through prevention. This is of special importance to the individual. The avoidance of pneumonia is largely a question of personal precautions that prevent the development of the disease by lessening the predisposition to it. Men in middle life, particularly those above fifty, must learn during unsettled weather to avoid crowds, especially when fatigued and when they have been for a number of hours without eating. Late at night, when for any reason a meal has been missed, crowds are dangerous. If this lesson could be generally learned there would be less pneumonia among the well-to-do classes. The principal danger comes in crowded street cars, which if possible should be avoided at rush hours. It needs to be emphasized that the danger from overcrowding is greatly enhanced by fatigue and going without food. In a word, the prevention of pneumonia is now much clearer than it was. Like all the other infectious diseases, instead of being a more or less inevitable dispensation it has come to be recognized as due to certain definite factors which can be greatly lessened by public and individual hygienic regulations.

SCHOOL DISEASES.

Children of school age contract such diseases as measles, scarlet fever and diphtheria much more frequently than older persons. All that has been learned about the modes of transmission of certain diseases, notably diphtheria, indicates that the taking of a large number of children out from their restricted family and neighborhood relationships and bringing them into contact with a much larger group will increase

the opportunities for infection. As regards opportunities for infection furnished by the school, it must be admitted that while the slate, the common drinking cup and the roller towel are fast passing away, sufficient facilities for the transfer of disease germs still exist in the friendly exchange of pocket handkerchiefs, lip-moistened lead pencils, chewing gum and the like. The school play ground, as well as the school room, must be considered in its bearing on the subject of school diseases. The significance of school attendance on the public health side lies not only in the assembling of children in a room, but also in the bringing into more or less intimate association a number of children who would otherwise not have met at all. Increasing the number of associates must necessarily increase the chances of infection. Diphtheria and scarlet fever show a marked increase in the autumn when the schools open and an equally definite decrease in the summer when the schools are closed.

The discovery of the part played by the healthy germ-carrier throws light on the probable origin of certain obscure cases of infection, says Prof. E. O. Jordan, of the University of Chicago, in a recent issue of *The Journal of the American Medical Association*. A child in a family in which a case of diphtheria exists may bear in its throat living diphtheria bacilli without manifesting any sign of the disease. If this child is allowed to enter school a playmate may acquire the bacillus without in its turn becoming definitely ill. This second child, however, may take the germ home and pass it on to a non-school-going child in the same family who then may develop a typical case of diphtheria. Methods of control of school and institutional outbreaks of diphtheria are therefore coming to be focused on the detection and exclusion

of the carrier. Disinfection of innocent chairs and tables and enforced school closure are in general found to be less effective than the discovery and isolation of the living bearer of diphtheria germs. When school attendance is regulated by bacteriologic findings, school epidemics quickly subside.

RAILWAY SANITATION.

The advance of the railways of the country in applied sanitation has been marked. When one recalls the conditions allowed to exist in railway cars twenty years ago the present state of cleanliness is comparatively satisfactory. The railways are indeed to be commended for their gradual introduction of hygienic regulations that keep their cars, in spite of the numbers of people who travel in them every day, in a state that is not likely to endanger health. There remains, however, one phase of railway sanitation that will soon have to be dealt with. Though it is a difficult phase, there is no doubt that improvement of present conditions must come without delay. It would seem to be better for the railways to take up the problem of their own initiative rather than be forced into it by legal regulation. This is the present mode of disposing of the sewage of trains. In former years when population was less dense and when trains were not nearly so frequent and crowded, it was perhaps not so much to be deprecated that the railways should scatter sewage over the right of way. Now that railways cross thickly populated tracts of territory, and express trains pass through towns of considerable size without stopping, the crude disregard of hygiene in this matter is entirely out of keeping with present-day sanitary science, particularly as the railway rule is to have the toilets locked only during the times of stopping at stations, which gives oppor-

tunity for the scattering of offensive material, distinctly dangerous to health, even on the streets of towns. Railways frequently cross streams that are connected with water supplies, and the present custom may well prove a source of contamination of drinking water. It will not be long, says *The Journal of the American Medical Association*, before the general public wakes up to this serious danger. Now that we are carefully disposing of sewage in connection with our cities and are no longer allowing ordinary waterways to be contaminated as formerly, protection of our smaller streams will surely come to be felt as a necessity.

ANTI-TYPHOID VACCINATION IN CHILDREN.

The use of antityphoid vaccine among children has, as yet, received scant attention. Osler says that "typhoid fever is a disease of youth and early adult life. Of the 1,500 cases treated in Johns Hopkins Hospital, there were under 15 years of age, 231; between 15 and 20, 253; between 20 and 30, 680; between 30 and 40, 227; between 40 and 50, 88; between 50 and 60, 11."

In a recent issue of *The Journal of the American Medical Association*, Major Russell, of the Army Medical Corps, discusses the inoculation of 359 children, between the ages of 2 and 16 years, who have been vaccinated by fifty different physicians in many parts of the United States. No harmful effects have been reported in any of the 359 children and, so far as known, none has contracted typhoid fever, although some of the vaccinations were made over three years ago. Major Russell regards it as a particularly valuable method in the case of children and young people leaving home for summer vacations, schools, college, etc. The importance of checking typhoid

among the young is shown by the fact that in the registration area of the United States there were in 1909, the last year for which complete mortality statistics are available, a total of 3,366 deaths from typhoid fever in patients under 20 years of age, out of a total of 10,722 of all ages, or almost one-third of all deaths from the disease. They were distributed according to ages as follows: Under 2 years, 97; under 3 years, 139; under 4 years, 132; under 5 years, 110; 5 to 9 years, 647; 10 to 19 years, 2,174. A very large proportion of these deaths can, without question, be prevented by the more frequent use of antityphoid vaccine.

THE HEALTH OF LONDON SCHOOL CHILDREN.

Only in the last few years has the law required every child attending an elementary school to be physically examined on entering and leaving and, therefore, statistics on the health of school children in England are only now available. About a million and a half of children are examined annually. The report of Sir George Newman, chief medical officer of the Board of Education for 1911, has just been issued. It shows the condition of 186,652 children in thirteen counties and sixteen urban areas and is far from satisfactory. Only in one urban area did the percentage of "good" nutrition reach 45 and from this figure it ranged down to as low as 3.8. Of 200,000 children examined in London more than half were found to be defective and over 78,000 were recommended for treatment. The malnutrition is due in the great majority of cases to ignorance of the relative value of foodstuffs and the means of using them economically and only in the minority to poverty. About 0.5 per cent. of the children are feeble-minded and of these about one-seventh are of such low grade

as to be uneducable. A summary of the report appears in the London letter in a recent number of *The Journal of the American Medical Association*.

From the Lay Press

A SPADE A SPADE.

From *Harper's Weekly*: "These causes he declared to be industrial labor among women, and alcohol and blood diseases among men."

It had been our hope that the one conspicuously and very greatly valuable result (among many doubtful ones) from the recent frank discussion of social vice and sex would be to put the word syphilis into the vocabulary of common discussion. To have made it possible to speak as freely and accurately about this disease as about the much less terrible tuberculosis would have been a hygienic and moral milestone.—*Collier's* May 3, 1913.

A MONUMENT TO THE GREATEST MODERN BENEFACTOR.

N. Y. Sun, May 2, 1913.

The beneficence of antisepsis which Sir Joseph Lister, of Edinburgh, has bestowed upon suffering humanity is shared by nearly every household in the world. Health, happiness and life itself will continue to be saved in cumulative proportions so long as the world is peopled, for of all discoveries for their preservation Lister's surgical antisepsis is the only one that is not assailed today.

Vaccination, for example, although the greatest life saving discovery, continues to be opposed hotly by many; our columns are burdened with protests and our waste basket with maudlin vaporings whenever *The Sun* ventures to advocate this effective preventive of a mutilating and death dealing

malady. Nor did Lister escape the fate of all reformers. A New York surgeon of eminence once likened antisepsis to "the hocus pocus of the pres-tidigitateur" and attempted to sustain this view by citing one hundred amputations by Amussat without a death.

The marvelous diminution of mortality under strict Listerian antisepsis, the disappearance of suppuration and other lethal sequels of surgical operations, emboldened surgeons in all countries to invade hitherto dreaded territories and converted always fatal operations into life savers. Volumes have been filled with the rehearsal of all the avenues to insure recovery that have been opened to the suregon. *The Sun* printed in its issue of April 7, 1912, a full account of "Marvels of Modern Surgery" and pointed out that these were made possible only by Lister's grand discovery.

A movement is now on foot to erect a monument to this greatest benefactor of modern times, a monument that shall proclaim to future generations the priceless benefits they are receiving from the labors of the patient, plodding Edinburgh scientist and surgeon, and, what is of far greater ultimate importance, that would stimulate others to emulate his grand example.

To the reflecting mind it is painful to note that the world honors the destroyer of life far more than the saver of life. History records the deeds and perpetuates all achievements on the field of carnage, and imposing monuments perpetuate the memory of the soldier. Monuments to those who have striven valiantly and often with sacrifice of life and health to save life are meagre in numbers and niggardly in proportion. Every schoolboy has an exalted idea of Alexander the great; is there one who has heard of Hippocrates? This physician is far greater than that illustrious general, because the

fruits of his achievements are today blessing mankind.

History proclaims the military achievements of Moltke, and his country is dotted with monuments to him and his generals while his contemporary Sir James Y. Simpson is barely mentioned; although this humble son of a baker in Edinburgh has freed woman from the primal curse, there is but one modest monument to perpetuate his memory, when every mother in the world may receive the boon he has bestowed upon woman.

Every American schoolboy is proud of the conquests of Winfield Scott. Does he know aught of Scott's greater contemporary Thomas G. Morton, the discoverer of ether, which banishes agonizing pain without cessation every day and night in all parts of the world? Which is the grander achievement, the conquest of Mexico, or the victory over unavoidable pain?

Is it the primal element of savagery surviving in man that prompts him to exalt the destroyer?

A committee has been formed in London to erect a worthy monument to Joseph Lister, the discoverer of antisepsis. Without doubt many contributions will be sent from this country. Not only should the surgeon who gained comfort and skill and the widening of usefulness aid this cause, but every individual who has experienced the beneficence of modern surgical methods made possible only by Lister, every human lover of his kind who admires conspicuous achievement in behalf of suffering humanity, must deem it a privilege to contribute to the Lister memorial fund.

THE SALE OF DR. FRIEDMANN'S CURE.
Editorial, N. Y. Sun, April 28, 1913.

On the day of the arrival in this city of Dr. Friedrich Franz Friedmann *The Sun* printed an article under the

caption "Fairness to a Foreign Scientist," in which we took the position that in the interest of suffering humanity and conformity with the American idea of fair play and no favor the foreign doctor should have an absolutely fair trial for his alleged cure. We maintained this position without advocating the treatment, since discussion of this phase of medicine is not within the policy of *The Sun*. Our position was quickly justified by the Public Health Service, which decided to subject the remedy to a fair clinical test.

While we estimate highly the maintenance of a high standard of ethics by the medical profession, a too narrow application of the altruistic spirit may be regarded as out of harmony with the conditions of modern life and its insatiate demand upon the hard worked and often unrequited doctor. We have therefore not been in accord with the too commonly accepted idea that Dr. Friedmann would merit ostracism if he concluded a commercial negotiation for his remedy. It would seem clear that the medical scientist is entitled to the same reward as the electrical or other scientist in financial emolument as well as in reputation. Especially erroneous is the view that suffering humanity may be injured by the commercialization of a medical discovery.

On the contrary, the preparation of a remedy by a reputable manufacturer insures its purity, whereas the publication of the formula must encourage competition that would necessarily lead to economy in the mode of preparation, with the probable result of deterioration in quality. This view is justified by results of Behring's diphtheria antitoxin. Especially menacing is the danger when a remedy demands skill and knowledge in its administration, as is claimed by Dr. Friedmann. These detrimental results to the sick

are obviated by the retention of control by Dr. Friedmann.

If it be true that the doctor has opposed a liberal system of free treatment to the poor, his course is, to say the least, disappointing, although a similar procedure has not operated against the successful use of similar agents, as Behring's antitoxin and salvarsan. Perchance the doctor may explain his reasons for adopting a course so opposed to his previous liberal expenditure of time and money exclusively for the treatment of the poor.

The purchasers of the remedy doubtless are aware of the risk they have undertaken in view of the facts that the positive value of the remedy has by no means been demonstrated here and that it is still subject to a decision by the Federal authorities. They may, however, rely upon the suggestive influence of a much exploited remedy to counteract this obvious risk.

CLARENDON DOCTORS MEET.

The State.

Manning, May 1.—The regular monthly meeting of the Clarendon County Medical Association was held here yesterday afternoon with an unusually good attendance of the members. It was expected that a special paper would be read by Dr. Hagood Woods, of Florence, formerly of this county, but the doctor sent a message that he was unable to be present at this time. He promises to try to attend the next meeting, which will be held on the last Wednesday in May. The principal topic considered at the meeting yesterday was gastro-intestinal disorders, which elicited expressions from a majority of those present. After the adjournment of the regular session the members repaired to a cafe and spent a pleasant hour in the consideration of a fish fry luncheon that had been prepared under the thoughtful direction

of Dr. W. S. Harvin, the secretary of the Association. It has been proposed to hold the next meeting at one of the lakes, where a fish fry and a day's outing may be enjoyed as a novel diversion.

MEDICAL COLLEGE FACULTY CHOSEN.

SUCCESS OF WHIRLWIND CAMPAIGN FOR \$75,000 BRINGS PRAISE FROM BOARD OF TRUSTEES, WHICH EXTENDS THANKS TO CONTRIBUTORS TO NEW BUILDING FUND.

News and Courier, April 30.

Members of the faculty of the State Medical College of South Carolina were elected yesterday afternoon by the Board of Trustees. The meeting was held in the Governor's office at Columbia, Mr. Blease being chairman of the board. Dr. Robert Wilson, Jr., of Charleston, had previously been chosen Dean. At yesterday's session, Dr. Lane Mullally was elected vice dean and Mr. Oscar W. Schleeter registrar. Charleston was complimented in resolutions for the success of the recent whirlwind campaign for a fund to be devoted to a new building for the Medical College, the structure to be erected opposite the Roper Hospital on a site given by the City of Charleston. Great interest was taken in Charleston in the choice of the faculty and many inquiries were made as to the personnel.

MEMBERS OF THE FACULTY.

Following were elected on the faculty, all of them being Charlestonians:

Anatomy—Professor of anatomy not filled; assistant professor of anatomy, Dr. W. Cyril O'Driscoll.

Bacteriology—Professor of bacteriology and hygiene. Dr. G. McF. Mood.

Chemistry—Professor of chemistry, Dr. F. L. Parker, Jr.

Dermatology and Syphilis—Clinical professor of dermatology and syphilis, Dr. J. A. Ball.

Materia Medica and Therapeutics—

Professor of *materia medica*, *therapeutics* and *roentgenology*. Dr. A. R. Taft.

Medicine—Professor of *medicine*, Dr. Robert Wilson, Jr.

Professor of the principles and practice of *medicine*. Dr. John L. Dawson.

Professor of *clinical medicine*, Dr. Joseph Maybank.

Clinical professor of *medicine*. Dr. Edward Rutledge.

Assistant professor of *medicine* and *neurology*. Dr. E. L. Jagar.

Clinical professor of *pediatrics*. Dr. W. P. Cornell.

Obstetrics—Professor of *obstetrics*. Dr. Lane Mullally. Assistant professor of *obstetrics*. Dr. G. Fraser Wilson.

Ophthalmology, *Otology*, *Rhinology* and *Larynology*—Professor of *Ophthalmology* and *otology*. Dr. E. F. Parker. Professors of *rhinology* and *larynology*. Dr. C. W. Kollock. Dr. W. P. Porcher.

Pharmacy—Professor of *pharmacy*, and *pharmacology*. W. H. Zeigler. Ph. G.

Physiology and *Embryology*—Professor of *physiology* and *embryology*. P. M. Rea.

Pathology—Professor of *pathology*, to be filled.

Surgery—Professor of *abdominal surgery*. Dr. A. J. Buist. Professor of *general surgery*. Dr. C. M. Rees.

Professor of *Gynecology*—Dr. R. S. Catheart.

Professor of principles of *surgery* and *surgical pathology*. Dr. C. P. Aimar.

Professor of *genitourinary surgery*. Dr. T. P. Whaley.

Clinical professor of *abdominal surgery*. Dr. A. E. Baker.

Assistant professor of *surgery*. Dr. A. J. Jersey.

Lecturers, instructors and other assistants will be elected by the faculty.

CHARLESTON CONGRATULATED.

The following resolution was adopt-

ed:

"Whereas, the citizens of Charleston and other friends of the State Medical College of South Carolina, have contributed the sum of \$75,800 for the purpose of a new building for the institution; be it

"Resolved, by the Board of Trustees, That the thanks of the board are extended to each and every individual contributor to said institution, for their loyalty and assistance to the institution.

"Resolved, second. That the special thanks of the board be extended to the members of the various committees, who, by their efficient work, have made it possible to place this institution upon a first class basis."

The board adjourned to meet again in Charleston on June 2.

Those present at the meeting yesterday were: Governor Blease, Superintendent Swearingen. Drs. J. B. Black, Charles Sims, J. M. Davis, W. A. Tripp, R. E. Hughes, W. W. Fennell, and S. B. Fishburne. Dr. Robert Wilson, Jr., the dean, also attended the meeting.

Book Review

Men, Manners and Medicine—By Medicus Peregrinus. Table of Contents: Men, Manners and Medicine; Three American Men of Letters; Some Aspects of the Doctor; Some Modern Aspects of Heredity and Evolution; Homeric Physicians; The Sacrifice to Asklepios; Arthurian Physicians; Some Aspects of Modern Life; Four English Men of Letters; The Doctor's Year. Octavo, uncut edges, in heavy paper cover. Price, postpaid, One Dollar. W. M. Leonard. Publisher, 101 Tremont Street. Boston, Mass.

The Essays and Sketches which make up this collection originally appeared from time to time in the columns of the Boston Medical and Surgical Journal. They represent the observations of a doctor, from his professional point of view, on men and books and other phenomena, especially in relation to medicine. The reader may be not only entertained but instructed, as he realizes how abundantly the doctor's life

affords special opportunities for contact with larger interests outside the day's work.

* * *

Epidemic Cerebro-Spinal Meningitis—By Abraham Sophian, M. D., formerly with New York Research Laboratory. Twenty-three illustrations. St. Louis: C. V. Mosby Company, 1913. Price \$3.00.

Owing to the widespread interest the frequent epidemics and many sporadic cases of this disease have elicited in recent years this book is indeed timely.

We have repeatedly alluded to the intrinsic merit of the monograph. The author's opportunities for research both in the laboratory and in the field have been most fortunate and the work reflects this in a clear cut manner.

* * *

The Surgical Clinics of John B. Murphy, M. D., at Mercy Hospital, Chicago. Volume II, No. II (April, 1913). Octavo of 171 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1913. Published bi-monthly. Price per year: Paper, \$8.00; cloth, \$12.00.

This volume is well up to the standard set by previous issues. It is well illustrated and exceedingly practical. A few of the subjects are given below:

Essential Hemorrhage of the Uterus—Hysterectomy (description of Dr. Murphy's operation for Hysterectomy); Gastric Ulcer, etc, a talk by Mr. Robert Milne, F. R. C. S., of London; further remarks by Mr. Robert Milne, F. R. C. S., of London, England; Following an Operation by Dr. Murphy for Fracture of the Humerus and Colle's Fracture; Impacted Fracture of the Body of the First Lumbar Vertebra; Laminectomy; Rapid Recovery following Decompression of Cord; Fracture of Tibia and Fibula (Lane Plate); Recurrent Appendicitis—Rectocecal Appendix with Description of Dr. Murphy's Proctoclysis.

* * *

The Operating Room and the Patient—

Third edition rewritten and enlarged. By Russell S. Fowler, M. D., Chief Surgeon First Division, German Hospital, Brooklyn, N. Y. Octavo volume of 611 pages with 212 illustrations. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, \$3.50 net.

This is an extremely interesting book. It is not too large for ordinary every day reference and the price is reasonable. There is no doubt about the necessity for just such a handy work in every doctor's library. From the preface we quote the following which shows much of the scope of the volume:

"Whether a single operation is contemplated or a series, whether in a hospital or private house, the precautions to be observed are the same. It has been my purpose to simplify the technic as much as is compatible with careful work and to present the subject in a terse, yet, I hope, readable manner. Simplification and

standardization are the keynotes of the hour; hence many of the early methods have been discarded for others which experience has proven efficient and better because simpler.

"Roughly, the underlying principles of successful surgical treatment may be summarized as follows: Careful anaesthesia, exact hemostasis, asepsis, rest of the injured part, use of the rest of the body, feeding advanced to normal as fast as the anesthetic weakened stomach can care for it, and the following of the general rules of hygiene."

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Editorials

Snap Shots of the A. M. A. at Minneapolis.

The meeting of the American Medical Association at Minneapolis, June 16th to 20th, may be said to have been constructive in its essential features. The House of Delegates was disposed to be progressive in its deliberations and conclusions. The most important single action taken was the adoption of an amendment to the Constitution whereby every member of the county and state association becomes automatically a member of the A. M. A., without extra expense. Those who subscribe to the *A. M. A. Journal* are to be Fellows. The report of the Council on Medical Education noted marked advancement in the South and especially in South Carolina and Georgia. It went so far as to say that the South had surpassed any other section of the country in this regard in the past five years.

The report of the Council on Health and Public Instruction was replete with interesting doings within the year. Among its activities are included Public Health Sunday, the day before the House convenes. The pulpits of about one hundred and thirty of the churches of St. Paul and Minneapolis were filled by physicians conversant with public health matters. The Editor-Secretary of the S. C. Medical Association filled two of these appointments, one in each city, speaking on the following subject: "Some Vital Public Health Problems and the Progress of the South in Their Solution." We were able to present, in a way which appeared to interest the congregation, some of the pioneer work of the members of our Association, especially in pellagra, hookworm disease and antityphoid vaccination. The Public Health Sunday might well precede the meeting of the

State Association, and to the lasting benefit of our hosts.

Fee splitting was treated exhaustively by the Judicial Council. South Carolina and the entire South was given credit for comparatively little secret fee division.

One of the remedies suggested was in line with suggestions made on different occasions in this journal, viz: That the physician has himself to blame who, through failure to put a just appraisal on his services and to demand a just reward from them, and who, through failure of endeavor to collect his just deserts, finds himself unappreciated and unrewarded. The foolish ancient idea that accounts must be sent out but once or twice a year, lax systems of accounts and collections, have much to do with the small income of physicians. For this condition of affairs the physician has himself to blame. The surgeon or other specialist, generally speaking, is more likely to practice modern business methods and enforce them, and he has greatly profited by doing so. It is gratifying that as far back as 1907 the South Carolina Medical Association adopted the same resolution adopted by the A. M. A. last week, that is, that a member found guilty of secret fee splitting be expelled from the Association. In this connection we wish to go on record again as favoring a section of the A. M. A. devoted to Medical Economics, the condition arising from the latter phase of medical practice being, we believe, at the bottom of all the fee splitting difficulties.

The House of Delegates received the Porto Rico Association as a constituent branch. In passing it may be well to note that Porto Rico has recently established a department of Public Health which includes among its many beneficent features Medical Inspection of Schools. The same is

true of the Philippines, though the former is by the provincial government while the latter has been inaugurated by the United States. When shall we reach such advances in this State?

Dr. Abram Jocobi, the venerable president, bade the House of Delegates an affectionate farewell. One by one the entire membership marched by his desk and paid their respects by a warm grasp of the hand. We noticed in not a few instances the sympathetic tear. Truly real fraternity and brotherly love still prevails in the great American medical profession. Upon Dr. Jocobi's retirement a Southern man stepped into this high office. Probably two or three times in the history of the A. M. A. has this been the case. Dr. John A. Witherspoon, of Nashville, Tenn., as a presiding officer has had few superiors. By his genial disposition and impartial rulings he became at once master of the situation.

The scientific side of the Association was well up to the mark set by former meetings. Fewer foreigners were present than in former years, but this did not detract from the real interest in the work accomplished.

For a single step forward, deserving especial comment, the scientific exhibit easily ranks first. The State Board of Health of Kentucky was decidedly attractive, particularly the hookworm department. Dr. J. S. Horsley, of Richmond, showed specimens of successful transplantation of intestines and blood vessels in the dog.

Dr. Bass, of New Orleans, showed the successive changes in the evolution of the malarial parasite. These three, all Southern exhibitors, received awards. There were many others, such as the Mayo Clinic, the University of Minnesota, and the N. Y. Lying-in-Hospital. These exhibits were in charge, at certain hours, of those at the head of the work shown and careful

ly explained. For instance, the men who have developed anesthesia apparatus were there to personally set forth their claims.

One of the newest operations receiving favorable discussions was by Dr. Albee, of New York. This operation provides for transplantation of bone in Potts disease, the patients being cured by this procedure and the spine strengthened and brought to a normal condition. This operation was included in the series of clinics provided by the Association for those who cared to attend. Clinics were arranged at the Mayo Clinic at Rochester and of which many hundred of doctors availed themselves.

Dr. Victor C. Vaughan, the Dean of the Medical School of Michigan at Ann Arbor, was elected president of the A. M. A., and Dr. Lillian H. South, of Bowling Green, Kentucky, one of the vice-presidents.

Dr. South is a woman of rare ability. She is the Bacteriologist of the State Board of Health of Kentucky, and has been secretary of the Secretary-Editors Association for many years. We believe that this compliment was not only in recognition of the personal worth of Dr. South, but a tribute to the woman in medicine, and the work of the women physicians in this country in behalf of the advancement of Public Health ideals. The great American Medical Association thus honored itself and we feel assured made no mistake.

The next Association meets at Atlantic City and unless interfered with by resignation or deaths or otherwise we will have accomplished the end so earnestly sought in the recent past—two delegates from our State, even on the re-apportionment basis of one to each 700 members or fraction thereof. On May 7th we were accredited with

712 members—but let us not stop here. Why not 1000?

The Verbal Delinquency of Southern Physicians.

In accepting a courteous request for a brief contribution from the editor of this journal, I am afforded the opportunity of stressing a point so often emphasized by me—the need of more written records of the views and achievements of our Southern medical workers. Any thoughtful observer, who will take the trouble to search the archives of medical literature, cannot fail to be surprised at the paucity of Southern names among the various contributors. This cannot be from either lack of brains or actual attainments, for in both the Southern physicians have proved themselves the peers of any, regardless of section, nationality or clime.

The mournful fact remains, however, that in but few instances have these achievements been recorded in black and white, while the majority of the master spirits who accomplished these notable deeds seemed satisfied with the serene consciousness of duty well done, neglecting to place on paper the results of their successful endeavors. That this most fatuous indifference has worked a grave injustice to Southern medical history no one will deny.

Permit me to cite two instances—one in modern and one in ancient history, either of which will amply prove my contention.

When, on March 30th, 1842, in the town of Jefferson, Georgia, Dr. Crawford W. Long, by the use of ether, removed without pain a wen from a man's neck, he simply accepted it as a meritorious act on his part, and modestly made neither "fuss nor feathers" over the discovery of anesthesia. Four and a half years later, in the Massachusetts General Hospital, Dr. W. T.

Morton administered ether while Dr. Warren amputated a leg. What did Dr. Morton do? He immediately "hot-footed" to the nearest place where he could make a written report, and almost before the fumes of ether had evaporated from the operating room, Dr. Morton was announcing his discovery to the four quarters of the civilized globe. For this no one can blame him, but the result of Dr. Long's misplaced modesty, as against the live, enterprising spirit of Dr. Morton, was a dislocation of history, which has only within the last few years been corrected.

In the first century of the Christian era there lived and labored together two eminent characters—one who was too busy doing good to write: the other, who carefully recorded all important events as they transpired. These men were Apollos and Paul. The former was the *doer* alone; the latter both the *doer* and *writer*. The consequence has been that Paul is known to every man, woman and child in Christendom, while Apollos, who is believed by many to have been the greater of the two, is known only by what Paul wrote concerning him.

Among the physicians of our Southland are some who meet with unique experiences, who observe rare phenomena, or, with idealistic mentalities, see visions and dream dreams not permitted to prosaic individualities. To these, or to any earnest toilers in our chosen field, this message is given.

Let not, therefore, the discoveries and achievements of our Southern intellects depend for perpetuation on mere oral transmission, but with "the written word" let us speed them on a lasting journey adown the corridors of time.

GEORGE M. NILES, M. D.

Atlanta, Ga.

Original Articles

BRIEF REMARKS ON GUNSHOT WOUNDS OF THE ABDOMEN, WITH REPORT OF CASES.*

By Lindsay Peters, M. D., Columbia, S. C.

I desire to report, as a basis of some remarks upon gunshot wounds of the abdomen, a case of injury of this character which was referred to me some years ago by Dr. Blakely, of Ora.

Recovery in this case was somewhat remarkable on account of the distance the patient had to travel, the length of time which had elapsed since the injury until he was operated upon and the number of perforations in the intestines.

The patient was a negro, 18 years of age. On August 17th, at 1:00 a. m., he was shot at close range (within 3 feet) with a 32 caliber pistol, the ball entering the left flank 1 inch above and 1 inch posterior to the left anterior superior spine of the os ilium. He arrived at the Taylor-Lane Hospital in Columbia about 1:00 a. m. on August 18th, having been brought a distance of 85 miles. On arrival he presented little evidence of shock and not much of suffering. His temperature was normal and pulse 112, of good volume. No distention of the abdomen was perceptible.

Prior to the shooting the patient had eaten a hearty supper at 7 or 8 p. m. and a large piece of watermelon at 11 or 12 p. m. Just before leaving his home for the hospital he was given about two tablespoonfuls of chicken soup. This, he said, was the only nourishment he received between the time of his injury and his arrival at

*Read by Title before the South Carolina Medical Association, Rock Hill, S. C., April 17, 1913.

the hospital.

About 2:30 A. M., with the assistance of Dr. McIntosh, I began an abdominal section. The incision was through the left linea semilunaris and about 12 cm. long. On opening the peritoneal cavity two or three ounces of blood clots, mixed with bloody fluid, escaped and much more was mopped out. Search for perforations was begun by drawing out consecutive loops of small intestine, suturing the perforations as soon as discovered and then returning the loops into the abdominal cavity before drawing out another loop continuous with that just returned. In this manner the entire length of the small intestine was inspected and ten perforations found and sutured. Lambert sutures were used for the first approximation of the peritoneal surfaces and over these a continuous suture. A few purse strings sutures were also employed. Fine silk was the material used for stitching the intestines. The intestines were kept warm and moist while out of the abdomen by the use of warm moist towels.

Behind the peritoneum, extending from the wound of entrance of the abdominal cavity across to the region of the appendix the tissues were dark and ecclaymotic. The appendix was coiled upon itself and partly adherent to surrounding intestines by light, apparently fresh adhesions. A perforation in the peritoneum near the splenic flexure of the colon apparently had been the source of hemorrhage, which had practically ceased. This wound was so close to the colon as to suggest the possibility of an extra-peritoneal wound of the bowel and hence an iodoform gauze drain was placed down to this point. The abdomen was flushed with sterile water until it returned clear and the wound was closed with through and through silk-worm gut sutures.

It was wonderful to observe Nature's efforts at repair of the injured bowel. With few exceptions, at the site of each perforation, the walls of the bowel were turned in and agglutinated lightly together over the wound, so as to completely cover and conceal the latter. No intestinal contents were found free in the peritoneal cavity and there were no evidences of extensive peritonitis even at so late a time after the injury, which suggests the possibility that had all the perforations been thus closed and had it been practicable to have withheld feeding for a sufficient length of time, the agglutination of the peritoneal surfaces over the perforations might have become sufficiently secure to have insured recovery without operation.

As soon as he had sufficiently recovered from the anesthetic he was removed from the operating table (at 6:15 A. M.) and placed in a rocking chair tilted slightly backwards and kept there for a week. (This contrivance for maintaining the patient in exaggerated Fowler position was the best at hand and proved quite efficient. It was, of course, well padded with pillows and had a hole in the seat which made unnecessary removing him from the chair when the bowels acted.)

During the first three days following operation he received four doses of 1-8 grain each of morphine sulphate hypodermically. Thirty-six hours after the operation he was given a small quantity of cracked ice and on the third day albumen water was given. Thereafter he was on liquid diet to the end of the first week.

The record of the temperature, pulse and respiration during the first two days are here given:

August 18—

Hour.	Temp.	Pulse	Resp.
5:15 A. M.	—	140	36
9:00 A. M.	—	136	36
12:00 M.	—	120	30

3:00 P. M.	100.4	124	30
9:30 P. M.	100	98	24
August 19—			
12:30 A. M.	100	96	22
3:30 A. M.	100	99	22
6:30 A. M.	100	90	18
9:30 A. M.	100	100	24
3:00 P. M.	101	120	28
6:00 P. M.	101.4	100	19
12:00 Night	102	103	22

On the third day the temperature, pulse and respiration had come down, all approaching the normal. Thereafter the course of the convalescence was that of steady improvement, the temperature, pulse and respiration remaining perfectly normal from the fifth day onward.

The urine was voided naturally at 9:00 A. M. of the first day and there was a copious spontaneous evacuation of the bowels on the third day.

At the end of a week, all danger of peritoneal infection being safely past, the patient was removed from the rocking chair and put to bed.

The gauze drain was pulled out and cut off gradually, a little each day, so that all had been removed by the end of a week and the drainage wound soon healed by granulation. The sutures were removed from the incision on the tenth day, union being perfect and the wound free from infection.

The patient was discharged from the hospital on the twenty-first day well.

Surgical treatment of gunshot wounds of the abdomen is a very modern practice. The treatment in the olden days and up to quite recent times was, almost without exception, expectant; it may be said that this was the prevailing practice until Marion Sims, that great blazer of pathways to success in surgery, by his vigorous and insistent teaching, turned the tide of professional opinion from the fatal policy of non-interference in favor of

surgical intervention.

The history of the evolution of the modern treatment for gunshot wounds of the abdomen has an especial interest to us of the South on account of the leading roles played by surgeons of the Southern States. Sims was a South Carolinian and the first publication of a deliberate exploratory section of the abdomen for gunshot wound was R. A. Kinloch, of Charleston, in 1882. Since then an ever increasing number of cases have been reported. In 1890, Morton collected from the literature 94 cases operated upon by 68 American surgeons. During the next decade a much larger number was reported from civil practice, as well as some cases injured in military campaigns.

In a careful search of articles published or abstracted in the *Journal of the American Medical Association* from 1900 to date I have found reports of 100 operations for gunshot wounds of the abdomen by 14 surgeons in civil practice. To these I have added 31 cases with a mortality of 25.8% reported by McRae in Kelly and Noble's text book of Gynecology and Abdominal Surgery. This list, though far from representing the total number of cases reported during that period, shows clearly the great improvement of results in the recent series of operations as compared with those of former years. The total number of deaths in these 138 cases was 38, an average mortality of 27.5%, and some surgeons were able to show a mortality much below this general average for the whole list. You are all familiar, for example, with Dr. Guerry's wonderful series of 23 cases, with two deaths, a mortality of 8.6%; John Young Brown, of St. Louis, in 1903, reported operations for gunshot injury of the abdomen in 23 patients of whom four died, a mortality of 17.3%; G. G. Holladay, of Portsmouth, Va., reported in

1908 seven cases, with six recoveries, 14.2% mortality, and Floyd W. McRae, of Atlanta, reports a personal series of eight operations with one death, a mortality of 12.5%. The brilliancy of these results is made apparent by a comparison with the older series, such as the 145 cases collected by W. E. Parker, in 1896, which showed an average mortality of 53.1%, the statistics of Seigel (quoted by Rodman and by McRae) covering 763 cases, with 51.6% mortality and those of various surgeons which show a mortality, without operation, of more than 60%.

The foregoing remarks do not apply to gunshot wounds of the abdomen inflicted in battle by the modern steel jacketed rifle ball of small caliber. It has been the experience of military surgeons that such wounds give a larger percentage of recoveries without than with operation. This appears to be due chiefly to three factors: first, the modern rifle ball of high velocity is apt to do less damage to the abdominal structures than the lead pistol bullet commonly used in civil cases; second, a large proportion of soldiers wounded in battle have been without solid food for some hours, which diminishes the probability of soiling of the peritoneal cavity by intestinal contents; third, the conditions for fulfilling the exacting requirements of these difficult operations in extemporized military hospitals are of necessity less favorable than in civil life.

I have called attention to the vast improvement in the results of operations for gunshot injuries of the abdomen in civil practice. To what is this improvement due? Surely the pistol and the shotgun of today are as deadly as those used in the past; therefore the cause of the lessened fatality of the wounds produced by them must be due to improved methods of treatment.

These are some of the factors:

In the first place it is generally recognized today that the largest number of cases are saved after these injuries by the earliest possible operation, instead of by waiting until there are pronounced signs of intra-abdominal hemorrhage or of peritonitis and then operating as a last resort—surgeons get their cases earlier now.

In the next place the pernicious practices of probing and of wasting precious time in inflating the bowels in the effort to prove that perforation has taken place or in searching for and extracting the bullet have been, happily, almost abandoned.

Again, a definite plan of procedure and technique have been worked out which have shortened the duration of the operations and reduced the chance of failure, by oversight, to repair some injury and of leaving infectious material in the abdominal cavity.

The physician who has charge of a patient shot in the abdomen should see to it that while preparations are being made for operation at the earliest possible moment by an experienced abdominal surgeon under favorable conditions, preferably in a hospital, the patient is not given either food or drink in any form and that he is not moved unnecessarily. Morphine should be used to relieve suffering and to prevent peristalsis. The physician should not cause delay by probing nor by inflation of the intestines to establish the fact of perforation of the intestines before insisting upon operation, for over 97% of penetrating gunshot wounds of the abdomen are perforating (Douglas) and if the wound is not penetrating this fact will be demonstrated by the surgeon under conditions which minimize the danger to the patient. He should not be deceived by the absence of shock or of evidences of internal hemorrhage, for these are often lacking in perforat-

ing abdominal wounds. He should obtain a specimen of urine at the earliest opportunity to determine whether it gives evidence of injury to the urinary apparatus by the presence of blood. Should blood be vomited or passed from the rectum this would be evidence of injury to the stomach or to the lower bowel respectively, but these are signs seldom seen and their absence has no value as a negation of injury to the organs just mentioned.

If operation is refused the main indications of treatment are fulfilled by absolute starvation for a number of days, morphine hypodermatically to relieve pain and prevent peristalsis, hypodermoclysis to combat shock or hemorrhage and maintaining the patient in exaggerated Fowler's posture to favor localization of infection of the peritoneal cavity.

When the patient is prepared for operation in the usual manner for emergency cases the surgeon will enlarge the wound of entrance by incision to determine its course and the point of entrance of the abdominal cavity. In some cases an extension of this incision will be sufficient to expose the entire field of injury, but in the majority of cases it will be best to make an incision in the mid-line sufficiently long to give ample exposure of all parts of the abdominal cavity, for this will facilitate and shorten the operation.

When there is active bleeding the first step should be the arrest of hemorrhage by ligation of the bleeding vessels when possible, but in case a wound of the liver, kidney or pancreas is the source of bleeding gauze packing will probably be found to be the best means of dealing with it. Wounds of the spleen may also be treated in this way, but when this organ is extensively injured extirpation may be the wisest procedure. When the gall bladder is injured extirpation is sometimes pre-

ferable to a time-consuming restoration of the structure by suture.

Perforations of the intestines should be closed, as soon as encountered, by an appropriate method of suture or when the injury involves a large area of the gut or there are many perforations close together resection of the bowel may be advisable. Resection may also be necessitated by injury to mesenteric blood vessels. Anastomosis of the resected intestines can usually be most rapidly accomplished in a satisfactory manner by using the Murphy button. Only short sections of the intestines should be brought out of the abdomen at a time. These should be kept warm and moist while out and when repaired should be returned to the abdominal cavity before drawing out another section. Of great importance is a systematic inspection of the entire extent of both the small and large intestines, for the omission of a single perforation may render unavailing an otherwise faultless surgical operation.

When the peritoneal cavity has been soiled by intestinal contents cleansing may be effected either by copious irrigation of the peritoneal cavity or by sponging with moist guaze. As to which of these methods is the preferable one the opinions of operators are at variance, some claiming that irrigation disseminates the infectious material throughout the peritoneal cavity and should therefore never be used, others that it should always be employed, being one of the main factors in successfully managing these cases. My personal inclination would be to irrigate in practically every case, for even when there has not been any discoverable escape of intestinal contents, there is always more or less blood free in the peritoneal cavity which would best be removed and I think this can be most easily and thoroughly accomplished by irrigation.

Some surgeons always drain the abdominal cavity in these operations, others omit the drain in cases in which there is no evident soiling of the peritoneum. Drainage is surely of vital importance in all cases where intestinal leakage has occurred. Tubes are used for this purpose by some operators, gauze by others.

An obstacle to the successful treatment of these cases, the importance of which is apt to be underestimated, is intestinal paresis with its consequent distention of the intestines and stagnation of toxic matter within them. The usual matter of combating this condition has been to drain the bowel by making an enterostomy. What appears likely to prove to be an improvement over this method is deflation by means of an instrument demonstrated before this Society at its 1911 meeting by Dr. A. B. Knowlton and which I have recently had the privilege of examining. Dr. Knowlton tells me that it is possible with his deflating tube to thoroughly evacuate the entire small intestine in a few moments, without trauma and without soiling of the peritoneal cavity and after withdrawing the instrument close the puncture, through which it was introduced into the bowel, by simply tying a purse-string suture. In using this instrument it would appear to be the proper procedure to insert it either into the ileum near the colonic juncture or into the upper jejunum and while pushing the intestine onto the instrument to search for perforations and close them as encountered. I think this device gives promise of great usefulness in abdominal surgery and should be an important factor in still further reducing the mortality of abdominal gunshot wounds, as well as other conditions in which intestinal distention contributes to a fatal result and I shall use it when a

suitable occasion presents itself.

After operation it is of great importance that the patient be maintained in the exaggerated Fowler's posture and in most cases proctoclysis, by Murphy's method, will be of great service.

Starvation for 24 or 48 hours should be the rule and the only nourishment during the first week should be liquids which are quickly digested and leave little or no residue in the intestines.

Morphine is useful not only in alleviating the pain, but also for the purpose of putting the intestines at rest. Cathartics and enemas are contraindicated during the first few days.

PELLAGRA IN CHILDREN, WITH OBSERVATIONS ON EIGHTY-FIVE CASES IN TWO ORPHANAGES.*

By H. W. Rice, M. D., Columbia, S. C.

Although the prevalence of pellagra is now receiving extensive consideration by American physicians I am not aware that the disease in children has been specially emphasized in this country. This paper, therefore, will deal chiefly with some observations upon two epidemics among children in orphanages, one occurring in a local institution where I have been the attending physician for the last six months, the other epidemic occurring in an orphanage in another part of the State, where I saw the cases with the physicians in charge of the patients.

When I became aware of the presence of these epidemics I made inquiry of other similar institutions as to their experience with pellagra. Of fourteen orphanages in this and other States that have been heard from, five have reported the existence of the disease among the inmates. In one orphanage twenty-four cases occurred last year,

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in another sixteen cases have occurred within the last few years with six deaths and ten recoveries. The other three institutions each report from one to five cases without deaths. So that it would appear that the disease as yet does not prevail extensively in such institutions. The 14 orphanages care for about 3,000 children.

In the two orphanages where my observations have been made, there have been altogether seventy-one cases this year and there are fourteen other children who have had one or more attacks without recurrence this year. The children have been collected from various parts of this and other States, the pellagrins representing thirty different counties. Some of these children were suffering from the disease when admitted to the institution; and the impression prevails among the officers of both orphanages that the first cases were imported. This surmise, however, could not be verified as the history shows that pellagra existed in these institutions several years before it was diagnosed. The nurse at one of the orphanages, whose experience enables her to recognize the disease now, is confident that she found cases there when she entered upon her duties eleven years ago. This was six years prior to the recognition of pellagra by Dr. Babcock in the South Carolina State Hospital in 1907. There are children in both orphanages who have had the disease for five years or more. In one of the orphanages there were twelve cases in 1907, twenty cases in 1910 and forty-three cases in 1912 with a less number in the intervening years.

Until this year the disease has been treated in one of these institutions as hookworm disease. In 1907 Dr. Stiles visited this institution and diagnosed hookworms in about twenty-five children among whom were several showing skin lesions of an unusual type. At

the suggestion of Dr. Stiles thymol was given to all these patients except two who were considered too weak by the physician in charge to take the treatment. These two children had been ill for some time with a severe dermatitis on the exposed surfaces—hands, feet, face and neck—together with an exhausting diarrhoea and marked cachexia. All the other cases received the thymol and are said to have recovered, but these two died. This convinced the attending physician that others of his cases would have died but for the timely administration of thymol. Henceforth thymol was immediately given to all cases showing a similar dermatitis whether hookworm ova were found in the stools or not. The thymol was repeated weekly for six successive weeks.

This spring, while acting as physician to this orphanage, I made a diagnosis of pellagra in a number of children showing the characteristic dermatitis in mild form. When informed that the cases with this "eruption" had been regarded as hookworm disease by my predecessor and that they always improved rapidly under thymol, I called in consultation Dr. Babcock and Dr. Robt. Wilson, who concurred in the diagnosis of pellagra in about twenty-five cases then existing at the orphanage. But in order to determine the relative frequency of hookworm in the pellagrous and non-pellagrous, the stools of all inmates of the orphanage have been examined microscopically. The result has shown 26% of the total population infected with hookworm. The pellagra cases showed 29% infected. But most of our pellagra cases are among the barefooted children who possibly are more liable to hookworm infection. So far as we can judge the pellagra cases who were given thymol for the expulsion of hookworm did not improve more rapidly than those who

did not receive the thymol.

CLINICAL ASPECTS.

In both orphanages the present epidemics began in April and subsided in August. This year the disease has been of an extremely mild type, and corresponds to descriptions of pellagra as it exists now among children in Italy.

In my service the diagnosis was made chiefly upon the symmetrical dermatitis of the exposed extremities, though diarrhoea, sore mouth and changes in the appearance of the tongue were frequent. The tongue was red on the sides and on the tip, often denuded of epithelium and In a few instances the papillae were elevated and red. But for the presence of an epidemic and the constant symmetry of the dermatitis upon the exposed surfaces many cases would not have been recognized.

The cutaneous changes began with an erythema appearing symmetrically upon the backs of the hands and arms and upon the dorsa of the feet. In some instances the backs of the hands only were involved, the erythematous border ending just above the wrists; in other cases the erythema extended over the arms, the upper limit being at the junction of the upper and middle thirds of the forearms. On the lower extremities the dorsa of the feet and the malleoli were involved, the erythema usually extending up the outer and posterior surface of the calves to within two or three inches of the popliteal space. In a few cases the backs of the forearms only or the calves of the legs only were involved. Occasionally there was a slight roughening of the elbows or knees. Casal's necklace was observed in one case. In only two instances were the unexposed parts of the body involved. One was in a girl with the fourth recurrence of the disease. The tops of her shoulders had a scaling patch the size of a dollar. In a boy

with the first attack an area the size of the hand appeared over each hypogastric region. There was only one mask form, though the back of the neck and parts of the face were involved in a few of the cases. After desquamation was completed the affected surface was smooth and lighter in color than the adjoining unaffected skin. Only a few of the children complained of a burning sensation in the erythematous area. None of the cases was of the "wet" type.

The mucous membrane of the mouth, while redder than normal, lacked that fiery redness which is seen in the severe types of the disease. In some instances the tongue was denuded in irregular areas giving the geographic aspect to the surface. Occasionally plaques of white, dead, epithelium adherent to the sides of the tongue or to the soft palate were observed.

Aside from the patella reflexes, the changes exhibited in the nervous system were few. One girl who had marked mental symptoms in her first attack five years ago had a mild eruption upon the arms and neck without other manifestations of the disease in this attack. Another girl, whose condition was being concealed from her, in an agitated manner appealed to a visiting physician to tell her if she had pellagra. She had said she would rather be dead than to know she had the disease.

In an analysis of forty-three active cases in one orphanage the frequency of the principal symptoms was noted. Thirty-three had the dermatitis upon the dorsa of the feet and the calves of the legs. These were the barefoot children. In the larger children wearing shoes the dermatitis was on the backs of the hands alone, or backs of hands and the forearms. If the shoes were left off the eruption often appeared also upon the feet, and it disap-

peared rapidly when the shoes were again put on, while the involvement of the hands persisted.

There were sixteen cases with frank sore mouth, eight with diarrhoea, and twenty-two with denuded and fissured tongue. It is probable that a larger number of children had slight diarrhoea which disappeared without being observed by the nurse or matrons. Hookworm ova were found in the stools of fourteen.

The patella reflexes in fifty-four cases were as follows: Exaggerated twenty-eight, decreased ten, absent six, normal eight, unequal on the two sides two.

Of forty-two cases the urine showed the reaction for indican in excess of normal in 50%. The reaction was as intense in some of the interval cases as in the active ones.

On July 15th, three months after the beginning of the epidemic, twenty-nine of the non-pellagrous of corresponding ages were weighed and the height measured. The average weight of the pellagrous was 73 7-10 lbs., the non-pellagrous 72 5-10 lbs.; average height of former 53 10-11 in., of the latter 53 1-11 in., thus showing a slight advantage of the pellagrous over the non-pellagrous both in height and weight. Ten children of the pellagrous and ten of the controls corresponding both in height and age were weighed showing practically the same results.

In the present epidemic no cases have been bed-ridden in either orphanage. A few have had moderate disability resulting from sore mouth and diarrhoea, but a large proportion of the cases appeared to be in excellent physical condition. A mild degree of anemia existed among those with the hookworm complication. Several had had severe previous attacks with only a slight recurrence this year. For the most part first attacks have been severer

than subsequent ones. An interval of one or more years between attacks was elicited in many cases. Of forty-three cases showing active symptoms this year seventeen have had one or more previous attacks. Of fourteen former cases without symptoms this year, three had their first attack five years ago with several recurrences, four had it four years ago and four two years ago and three one year ago with no return to date.

Of eighty-five cases in the two orphanages forty-five are females and forty males. However, in one orphanage 27% of the male inmates and only 26% of the females were affected. In this orphanage of fifty-seven cases 79% were under the age of puberty. So that we are not surprised to find in these cases but little difference in the proportion of the sexes.

There have been no deaths this year, and all symptoms had practically disappeared by the first of August.

From our investigations we can say that the type of pellagra in these institutions this year is much milder than that which prevailed five or six years ago. Then a number of children had a severe form of the disease, several of whom are still in the orphanages, exhibiting only slight or no manifestations of the disease this year. In these early cases not infrequently the dermatitis was of the "wet" type. The children were confined to bed for weeks and months reaching an advanced stage of cachexia with exhausting diarrhoea and profound nervous and mental symptoms.

In 1907 two deaths, above cited, occurred. A history of these and several other cases was obtained from the physician then in charge and reported by Dr. Babcock in his first announcement on pellagra in 1907. Another death occurred in 1910. This boy was given the usual six weeks treatment of thy-

mol. His skin lesions cleared up, but he then developed "typhoid fever" and finally died in paroxysms of cramps.

In all we have obtained a history of fifteen of these early cases. Thus we are able to report a total of one hundred cases of pellagra that have occurred since 1907 in the two orphanages. No doubt some cases have escaped detection. The two orphanages accommodate about five hundred children. It would not be wide of the mark to say that 20% of the total number of inmates in one of these orphanages for the past five years have had pellagra.

EPIDEMIOLOGY.

The insect life of one of these orphanages was studied by Mr. W. V. King, entomologist of the Department of Agriculture of the U. S. He kindly permitted me to give the result of his investigations. He reports the prevalence of *Stomoxyx Calcitrans* (stable fly); *Culicidae* (mosquitoes); *Cimex Lectularia* (bed bug); and *Simulium* (Buffalo gnats or black flies). The nearest running stream to the premises is three-fourths of a mile away. It was found to be infested with immature stages of *Similium*. We have no expert information as to the insects at the other orphanage.

The water supply of both institutions is obtained from bored wells, one hundred feet and over deep. It is pumped into elevated tanks from which it is distributed through pipes to the several buildings.

A sewerage plant has recently been installed in one of the orphanages. In the other the open surface privy prevails though a sewerage system will soon be put in.

The cottages in one institution are screened. In the other they are partially screened, and here the stables and stock yard are within a short distance of the living quarters and of the dining room and kitchen.

The children are allowed a trip to other parts of the State during school vacations. In one orphanage of twenty-six new cases this year seven spent from two to four weeks of the preceding summer away from the institution.

Seventy children who have not yet contracted pellagra are known to have slept with those who were suffering from the disease.

Of twenty-six new cases twelve were at the orphanage during the last epidemic of pellagra at the institution in 1910, and nine had slept with one or more children who had been previously affected.

Of fifty-seven pellagrins in one institution, five are known to have had symptoms of the disease when they were admitted; twenty had been inmates for twelve months or less, thirteen for six months or less, when they developed symptoms; and thirty-two had been in the orphanage from one to twelve years before the disease was contracted. Hence, if we accept twelve months as the incubation period, twenty-five of fifty-seven cases were in the incubation stage when admitted. Or if six months be the incubation period, then eighteen had the disease on admission. This leaves thirty-two cases who probably contracted pellagra after becoming inmates of the orphanage.

ETIOLOGY.

Our limited study of the disease precludes any attempt at the solution of the etiological question; but certain predisposing factors have not escaped notice. In the first place, in orphanages we are not dealing with the average normal child. These children are descendants of parents with a short life span who in many instances have died of hereditary disease or diseases that send into the world a handicapped progeny. We have ascertained the cause of death of one parent in thirty-

two pellagrous children as follows: Paralysis three, tuberculosis five, heart disease three, pneumonia five, Bright's disease two, pellagra eight, cancer one, typhoid one, appendicitis one, meningitis one, railroad accident one, malaria one. Thus 68% of these parents died of disease that transmit lowered vital resistance. Moreover, many of these children come from unhygienic environments, and have been nurtured under all the disadvantages of poverty. So that with an hereditary taint, or a lowered resistance to all diseases, what wonder that these dependents upon society should become victims of pellagra.

The age incidence in our cases is of interest. Of fifty-seven cases 79% were under twelve years when the disease developed, while only 58% of the children in this institution were under twelve years.

In both orphanages an epidemic of measles and whooping cough occurred just prior to the outbreak of pellagra. In one orphanage there were seventy-five cases of measles, in the other fifty cases.

If pellagra is contagious it certainly is much less so than measles or whooping cough or scarlet fever. Of one hundred unprotected children exposed to measles 98% have been known to contract the disease, of four hundred and one children exposed to whooping cough 91% contracted the disease, and of one hundred exposed to scarlet fever 50% became infected. In the present epidemics of pellagra the opportunity for the spread of the disease by contagion was the optimum. The children are daily in contact—in school, at play, at work, in the dining room, in the homes; and, as seen above, seventy of the unaffected children in one institution were bedfellows of the pellagrous. Yet of two hundred unprotected children in this institution only 12% con-

tracted pellagra this year.

AS TO CORN PRODUCTS.

In one of the orphanages for the past three years only home grown and home ground corn has been used. The corn used this year is said to have been of an inferior quality to that usually harvested. Specimens of this corn were submitted to our State laboratories and also the U. S. Bureau of Plant Industry in Washington. The report from the State laboratory gave 23 acidity for the corn. The report from Washington gave 9.5 acidity for the corn and 18.5 for the meal submitted. The Gasio ferric chloride reaction was negative. So that according to our present tests this corn was well within the limits allowed for good corn. At the other orphanage the meal and grits used are purchased in the local stores. In one orphanage the amount consumed per capita per day was 22.7 oz., in the other orphanage 3 oz.

In one of the orphanages cottoleone has been used exclusively for over thirty years as a substitute for lard, in the other orphanage it has been used for an indefinite period.

In both orphanages the food is cooked in one kitchen and the variety is probably as great as is possible in such institutions. Vegetables are produced upon the farms in abundance and both institutions have their own dairies. However, there is a certain "monotony" of diet that is more or less unavoidable in all large institutions of this kind.

Finally we are led to inquire what will be the course of pellagra in these orphanages in the future. Will it continue to grow milder or will it vary in severity with each recurring season after the manner of other epidemic diseases? Or is there an immunizing process acting whereby all the inmates shall become insusceptible and the disease attack only new comers?

I would here express my obligations to Dr. J. W. Babcock and Drs. J. W. and J. L. Young for professional courtesies and to the Superintendent and nurses of these orphanages for their co-operation in securing data for the preparation of this report.

**THE VALUE OF SERUM REACTION IN
THE DIAGNOSIS OF SYPHILIS, AND
IN THE DETECTION OF RECURRENCES.***

By G. F. McInnes, M. D., Charleston,
S. C.

With the new discoveries in laboratory technique and proper equipped laboratories comes more correct diagnosis, thanks to the great men who have spent time and money researching for aid to humanity. We have the various tests for syphilis and other diseases. Quite often a sufferer passes into the worlds unknown because his case has been either undiagnosed or wrongly diagnosed. Syphilis is a disease so prevalent and still on the increase. This accounts for so many paralytics, cases of insanity, lesions supposed to be cancerous, pulmonary troubles, simulating tuberculosis, gastric conditions, chronic ulcers, aneurisms, diseases of the liver, of the skin, bone lesions and cerebral tumors.

Syphilis, at some stages, may simulate many other diseases. Now comes the question to differentiate. At times, even with the modern laboratory, it is difficult to make a diagnosis; but the most of the time, serum reactions will throw some light on the case.

How many diseases are the direct offspring of syphilis, unrecognized? What good would it do to treat a case of this symptomatically? Not only would it not do good, but it would do harm if the cause was not removed.

You would be treating the patient incorrectly and doing him an injustice; only increasing the danger of the disease attacking the nervous system. How many patients are every day falling into an incurable state, on account of neglect of making a proper diagnosis?

Making an early diagnosis is not only important from the standpoint of early treatment, but sometimes saving the patient from embarrassment of breaking out with external lesions and the laying off for an uncertain time from work. On the contrary, giving the patient treatment for syphilis over a period of two or more years that had not had syphilis, is unjustifiable. Numbers of patients coming under our observation each year with indefinite histories, some of which are placed on antiluetic treatment that are not lueti, and others assured that nothing is the matter with them that are in reality luetic.

There is another class of patients with vague troubles that are placed in a state of syphilophobia that never had syphilis, by being told that they are luetic and when placed on antiluetic treatment do not respond. They then make up their minds that they are doomed and go to some one else, who has the blood tested and negative reaction reported, and they are told that they probably have not been suffering from syphilis.

The next class is the one that the secondaries were either very vague or transient and the patient is assured that he was not infected. This patient may have upsonic resistance enough never to show any further symptoms, until later in life when the nervous system becomes involved and all hope of complete recovery has flown to the wind. Or, in the case of women, who get married; instead of delivering healthy children, begin to abort (this

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is nature's effort to prevent the birth of luetic babies). At this stage it is impossible to tell, without the proper means, whether this patient is luetic or not.

As a matter of interest I will mention here that some of these women that abort one or more babies seem to acquire partial immunity, and deliver several children alive that are luetic and some apparently healthy. The most probable explanation of this is that the organisms have become localized and left the blood stream. (Although these women may give a positive serum reaction, due to toxins or anti-body: we do not know which. This is still an unsettled question.)

One other fact worth mentioning here is that these children do not inherit the disease from their sire, but are infected through their dam. If the sire is luetic and does not infect the mother the child will not, as far as we can tell, be luetic.

The discovery of the serum reactions by Bordet and Gengou open up a field for diagnosis. They found out that the active complement (or body) in the blood serum of healthy animals would be destroyed or fixed by toxins of bacteria or antibodies of infected animals, and the action of ambo-eceptors (receiving bodies) depends on unfixed complement for their action. This was put into use by Wasserman and modified by Noguchi and others. Thanks to these men, we are now able to tell more definitely as to whether syphilis is present or not.

Before going into details of scientific diagnosis, I will mention that it was one time thought that if you gave a patient mercury and iodide of potash for a given symptom and it cleared up the trouble, this was positive proof that the patient had syphilis. This is a bad mistake, as mercury and potash

improves more diseases than syphilis.

The serum test of complement fixation of Wasserman and Noguchi are probably most used. The luetic skin test of Noguchi and the finding of the spirochaeta, either by the dark field methods or staining the organism on dried smears, are also used. Taking all stages of syphilis combined after the first three weeks, the Wasserman and Noguchi tests will give positive reaction in about ninety-five per cent. of cases. Noguchi claims a larger percentage than Wasserman, but I have not found such to be the case.

Noguchi claims that his luetic reaction is more constant in latent and congenital infections than during the primary and secondary stages. The reaction at this stage is infrequent and when present is very mild. This luetic is an emulsion of a pure culture of treponema pallidum grown on acetic fluid with the addition of small pieces of sterile placenta. A small amount of this emulsion, after being killed at sixty degrees C. is injected in the dermal layer. Within from twenty-four to forty-eight hours the small raised papule forms reddish and indurated about five to ten MM^s in diameter, the dimension and degree of induration slowly increases for three or four days and then begins to recede, the color of the papule gradually becomes a dark bluish red. The reaction disappears within about a week; except in certain cases when it may last longer. In a few instances the reaction is slow and does not show up for three or four days. If negative the sight of inoculation becomes reddish for only forty-eight hours and then disappears.

The Wasserman and Noguchi serum reaction are most commonly used, although there are a number of modifications. We have found, taking all stages of syphilis into consideration, about 90% per cent of untreated cases

show positive. Treatment makes some difference, especially if treated for some time and blood drawn while still on treatment. It is always well to stop treatment for a few weeks before testing blood. Our experience has been that with every positive reaction the patient gives a positive or suspicious history. We have examined blood from malaria, leprosy and tuberculosis, and gotten negative reaction, although some authorities claim that these diseases give positive Wasserman's. We would have to exclude syphilis before we say that these diseases give a positive reaction, as they may be associated with syphilis, the patient having both. We have gotten reactions positive in cases of supposed tuberculosis that cleared up on Salvarsan. In the late lesions of syphilis when the nervous system becomes involved these patients give very slight reactions. Sometimes a few doses of sodium eaccodylate, or a few days mercury, or even one dose of Salvarsan, and the blood drawn and tested eight to fourteen days later will give a heavy positive. This is due, we think, to the liberation of endo-toxins into the circulation that have been locked up in some part of the nervous system.

The diagnosis in early lesion can sometimes be made by the finding of the spirochaeta in smears, made from the lesions. These can be found before the induration ulcerates by picking it and making a smear dried on cover glass, fixed in methal alcohol, stained with any of the acidyes or with silver nitrate solution, five per cent.; or it can be examined in the moist state with the dark field condenser and found alive.

Another method is to mix this drop of serum with a little India ink and dried on cover glass and is ready for examination. The spirochaeta are pearly white on a black background.

There are clinical symptoms or manifestations that are so positive that the case can be diagnosed syphilis without going into the laboratory; but now that you have treated this case, how do you know that it is well? All clinical manifestations have disappeared and the patient feels well. Now, without the serum, or luetin reaction, it is impossible to tell.

To take up a few cases that are difficult to diagnose. For instance: Patient suffering from intense headaches that yield to nothing; patient denying all history. These cases if luetic will give a positive Wasserman and the proper treatment will at once relieve the trouble. In the past few months we have examined the blood of a few of these cases with no history. The ones that were positive cleared up with antiluetic treatment.

There are cases of so-called cancer that are not cancer; or were not cancer in the beginning. I can recite several cases diagnosed cancer that gave positive reactions and cleared up with antisypilitic treatment. There are cases with cancerous lesions that were probably sypilitic in the beginning that give positive reaction, but a lesion like this will not clear up with antisypilitic treatment; although the patient may improve in general conditions. Several of these patients have come under our observation lately, some of which have given positive reaction and responded to treatment.

Probably the most interesting are four cases with pulmonary conditions with the following history and symptoms: Severe cough, with profuse expectoration; loss of flesh, large ralls in bronchi; no history in two of them; one of them had history of initial lesion on genital, no secondaries; one the initial lesion on finger, no late secondaries. The first three had no T. B. in sputum, but lots of other organisms;

one showed larged medio-stinal glands on radiograph; all three gave positive Wasserman's and cleared up in three weeks with Salvarsan intravenous. The fourth case, patient lost weight, had severe cough, profuse expectoration, great number of T. B. in sputum, consolidation both apexes of lungs; diagnosed by several men in our city and confirmed at a sanitorium at Asheville as being pulmonary tuberculosis, according to his history. The patient returned home and as an experiment he took one dose of "606" in the muscles, remembering his old trouble and thinking it wise to get it out of his blood in order to give him a fighting chance for life. He improved so much that he came to Charleston and consulted us. We examined his blood and found it still giving a heavy positive Wasserman and gave him two doses of Salvarsan, in the vein, ten days apart.

He made a wonderful improvement and, at last report from him, there were no T. B. in his sputum, and his lung condition had practically cleared up, cleansing his blood of syphilis which gave nature a chance to take care of the T. B.

Three other interesting cases diagnosed as chronic gastritis, with history of getting thin, everything eaten disagreeing with them, gave positive reaction and cleared up with Salvarsan intravenous. Each gave a history of luetic infection ten to eighteen years ago. I could mention several interesting cases, but will not take your time.

THE SERUM REACTION IN PRIMARY SYPHILIS.

In cases of primary syphilis various workers report great variation in results, some of them reporting a large per cent the first week; others a very small per cent before the third week, after the induration appears. Our records show only a very small per cent

positive before the third week, after the chancre appears and quite a large per cent after the third week; although we have one case showing a positive Wasserman reaction as close as two weeks after exposure, or just about the time the nodule began to ulcerate. However, it is valuable to try to spot the spirochaeta in the interval before the reaction becomes positive. It is believed by some that if the chancre is excised before the serum reaction becomes positive, that it stops a great deal of infection from becoming generalized. There is a great difference of opinion as to whether this makes any difference. Most authorities think not and, according to Bruck, it does not; as he found that inoculated monkeys would give positive reaction at times before the chancre formed. It will be well to bear in mind that a positive reaction does not differentiate a chancre from a gumma, as the nodule may be an early infection (or the chancre) or a latent infection. This nodule may be a gumma.

In secondary syphilis there is a great difference of opinion, but not so much as in the early or late stage. Quite a large per cent of untreated secondary syphilis give positive reaction. Our records show about 98%; some workers claim 100%, others as low as 70%. Cases that have been on active treatment vary quite a great deal. Some show positive and some negative depending on the drug and method of using. Mercury, unless pushed to a stage of salivation, does not effect the reaction for several months. Arsenic and the iodides, unless given in tremendous doses, have about the same effect as mercury on the reaction. The serum reactions are particularly valuable in differentiating secondary eruptions from other acute infections of the skin, as patients with syphilitic skin lesions give quite marked positive re-

actions in a large majority of cases.

In tertiary syphilis reaction varies according to the amount of treatment the patient has received and length of time he has been on treatment; also the interval between leaving off the treatment and blood tested. Some writers report as high as 96%. Our results have been a little over 90%. In cases that have been on treatment quite steadily, the treatment should be left off at least four to six weeks before testing the blood. Patients that have not been on treatment and are giving negative reactions will sometimes give positive reactions by being given large doses of arsenic, mercury, or one dose of Salvarsan. This positive reaction, we believe, is due to the liberation of toxins from some encapsulated areas into the circulation. At this stage of syphilis the serum reactions are often of great value to differentiate syphilis from other diseases, as nearly any organ of the body when attacked by syphilis can simulate other diseases. Take the liver cases, diagnosed cirrhosis, carcinoma, etc., some of which are syphilis and give positive reactions, which alter the prognosis.

Diseases of the aorta and other vessels, aneurisms, arteriosclerosis, give a positive reaction in a large majority of cases, especially aneurisms. These have also been proved to me syphilitic in the dead house, by finding the spirochaeta in the aneurism-walls. In tumors, sarcoma, carcinoma, tuberculosis and syphilitic new growths, especially those attacking the bone, it is hard to differentiate apart, without use of the microscope and serum reactions.

NERVE LESIONS.

How many of these are the direct outcome of syphilis and, with a proper diagnosis, would do much for the outlook of the patient. Brain tumors, optic neuritis, spinal cord lesions. Many of these cases are syphilitic and

give a positive serum reaction, and if diagnosis was made early enough, will respond to treatment. In Tabes Dorsalis, it is being proven more every day that syphilis is the exciting cause, as practically all of these patients give a positive serum reaction in varied degrees. General paresis and paralytic dementia also give positive Wasserman reaction.

The serum reactions in congenital syphilis is quite constant. These patients give positive reactions in from 38% to 100%, according to different authors. In Profeta's Law he thought that if a syphilitic mother gave birth to a child that showed no taint of syphilis, this child was immuned and could suckle the mother with impunity. This has been proven to be untrue. These children will give a positive reaction and, later in life, will show signs of Lues.

RESULTS OF TREATMENT.

It is now shown by the serum reactions (or specific compliment fixation) that there is about 80% of mercury treated patients that are giving positive reactions, thus showing that they are not cured. This proves the idea of mercury being a specific is not true. As for the treatment with Salvarsan, so far as we can tell, it is doing more than mercury, and doing it quicker. Time and the watching of clinical symptoms and testing the blood at stated intervals (say three times a year) will be our only proof.

So far, we have found that there are quite a few recurrants from one dose of Salvarsan, taking the three classes into consideration. We think that time will show as high as 50%, although we have a few on our list standing over two years who have had tertiary lesions that cleared up with 6-10 Salvarsan intravenous and are still clinically and serologically negative. The per cent of recurrants after

two doses is very much smaller. The number after three doses, ten days to two weeks apart, is very few. Out of about fifty cases that received three doses intravenous, that we have been able to keep under our observation and examined the blood at about three months intervals, we have found five seriological recurrents; one of which had a clinical recurrent who had three doses, two weeks apart, and who started to take treatment at the first positive reaction. This patient even under treatment developed a generalized glandular enlargement which subsided almost entirely after third dose of Salvarsan. He was then placed on mercury and iodide, but instead of the glands returning to normal, they increased in size and, six months later, gave a positive reaction. Was given two more doses of Salvarsan, 6-10 grams each, intravenous, and is now improving.

Unfortunately there are quite a number that we could not secure specimens of blood to test, or that we have lost sight of; so cannot give results of more cases. The above cases were all treated by the intravenous method and given .6 grams each, two weeks apart. Now, as to the intra-muscular method of giving Salvarsan—we have none on our list, except those given by other men; these being referred to us for serum tests. A great number of these have shown positive reaction. This may be due to the fact that the most of them only got one dose. One of particular interest here is a white male patient that had taken mercury faithfully for fourteen months and, while still taking treatment, gave a heavy positive reaction. He was then given two intra-muscular injections of Salvarsan, about six weeks apart. Three months later he still had a positive Wasserman reaction.

One of the probable causes of the

intra-muscular doses of Salvarsan not taking so much effect is that a large number of these doses are encapsulated in the tissues and absorbed very slowly or not at all, as some of these encapsulations have sluffed out. It may be of interest to note here the cases of Tabes that have come under our observation all of which have given positive reactions. But, unfortunately, only three of these we were able to follow up. These were given .6 Salvarsan, intravenous. The reaction became negative in about four to six weeks, two of which improved slightly clinically. The other was a paralytic, and did not improve: although the serum reaction became negative, the damage to nerve tissue was already done. We have given Salvarsan, intravenous, to three cerebral cases, one of which had developed the cerebral vomiting. They all improved immediately. The last patient being left with a permanent paralysis in one side of face, but this was very slight.

It may be of interest to mention that we have had one or two patients developing paralysis in one or more muscles in the face: one of which developed paralysis in his internal recti of the eye, following Salvarsan. This occurred about six months after the treatment. These patients were giving negative reaction at the time and the muscles were restored to normal after taking iodide of potash for about four weeks. Two cases, with optic neuritis, gave positive Wasserman reaction and their vision improved a great deal after the administration of Salvarsan. I have not been able to get specimens of blood from the last two cases, therefore am unable to state whether same was negative or not.

In ending this paper I would like to mention something of the reactions, both clinically and serologically, following the doses of Salvarsan. We

have found that patients with heavy positive blood reaction have very violent clinical reaction, following the dose of Salvarsan, intravenous; such as chills, vomiting and purging. Some theories are that this reaction is due to dead bodies of organisms in the water used to make the salt solution. Others that it is arsenic poisoning. We believe that it is due to the liberation of syphilitic endotoxins in the circulation, as patients giving very mild blood reactions and with very little clinical symptoms do not have much reaction following the administration of the drug. The dead bacteria theory we can eliminate because the water used by us comes right from the still to the sterilizer and then the patient, not standing but a few minutes. The arsenic poisoning can be excluded because patients weighing only one hundred pounds at times do not have any more reaction than patients weighing one hundred and eighty pounds, both receiving the same sized dose.

Also interesting to note here is the fact that the Wasserman reaction becomes very much heavier positive for about two weeks after the administration of Salvarsan intravenously then begins to decrease and is negative in about four weeks.

**SOME OFTEN OVERLOOKED CAUSES
FOR DISTURBANCES OF THE
HEART.***

By T. E. Wannamaker, Jr., M. D.,
Cheraw, S. C.

It is my purpose to briefly mention a few conditions which have their influence on disturbances of cardiac function, for the recognition of these and their treatment bears an important part in the care of heart cases.

Many of these may be really sequels

of the primary disease of the heart; nevertheless, many of them later become an additional cause of trouble.

The many diseases and disturbances laid down in text books and recognized by us all will be left to your remembrance of them, though some knowledge of them is essential before considering minor factors which might be overlooked. These may be grouped as follows:

1. Emotions: fright, anger, grief, sudden shock, etc.
2. Indigestion: heavy meals.
3. Violent exercise, especially sudden, quick demand for increased heart action, for this is more detrimental than a greater demand gradually called upon.
4. Toxemia.
5. Over-stimulation: by whiskey, coffee, tobacco, strychnine, and other substances directly affecting the heart.
6. Condition of the channels of circulation.

First: Under the emotions and sudden shock I would report the case of a patient with chronic Bright's disease to whom I was recently called upon to attend when he fell to the floor at the unexpected discharge of a pistol in a nearby room by his drunken son. He had all symptoms and signs of acute dilatation of the heart and recovered after one or two days in bed.

I remember another patient with chronic nephritis, who fell dead when lightning struck the chimney of his house. No burns were on his body or clothing, and others near him were unhurt.

Second: Indigestion and heavy meals of course tax a feeble heart. We all know instances where a heavy or undigested meal has caused even the first symptoms of serious heart trouble, and, much too often, the fatal crisis.

Third: Violent Exercise. I remem-

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ber a patient with aortic regurgitation who, feeling very well, died while leaving the hospital and was in the act of catching a moving street car.

Every one of course should have exercise in proportion to the ability to endure it, for I am satisfied that walking, "the natural means of man's locomotion," is beneficial in proportion to the individual's ability to endure it.

A patient doing strenuous work suddenly noticed a peculiar blowing sound in his chest, so loud as to be heard by himself. He was disturbed only by the "music" in his chest, and, on examination, it appeared he had ruptured a valve in his heart. Under exercise we might consider the danger of erect posture such as sitting up in bed, which might prove serious at critical times.

Fourth: Toxemia. Several months ago I saw a woman whom two physicians had correctly treated for eclampsia and toxemia by delivery of the child, hot packs, eroton oil, phlebotomy, hyperdomoclysis, etc. She had remained in a coma for two days and life was despaired of. The pulse was beating 150 per minute and had been for several hours, despite the administration of digitalis hypodermically. She was in a cold, clammy sweat, which was checked with atropine. Ice bags over the heart did not alter the rapid heart action, nor did it lessen until we gave calomel, which I thought aided in the further removal of toxines and stimulated the liver in its efforts to destroy toxines. Synchronous with a reduction in pulse rate was a return to consciousness and general improvement of the patient.

Fifth: Over-stimulation. We wish to emphasize the frequency of this condition in cases being treated by physicians themselves and often "self-treated" patients. Small bottles of strychnine tablets fit nicely in the vest pocket and the watch in the other. Both

are easily obtained and frequently handled when long hours at business beg for rest, but the cruel horseman whips his team on to death.

Sixth: Condition of the Channels of Circulation. We would expect even a good pump to be disturbed pumping blood through hard atheromatous tubes which do not bend with the current, but often cause the blood to be forced up them at sharp angles.

The dropsical condition which may arise as a cause of poor circulation is itself an obstruction to the flow of blood through these parts. Relieve this secondary obstruction with salines and you relieve a disturbed heart. So, too, the passive congestion of the liver. Purge, but, like exercise, purge with care.

The lungs and their blood vessels are commonly the battleground in disturbances of the heart. Congestion of these organs, or the filling of the pleurae with fluids, should receive prompt and active treatment.

And, alas! many will say, what's the use, he has heart trouble and will die? So he will, and so we all will, and he might outlive us both.

THE MANAGEMENT OF THE TOXEMIA OF PREGNANCY.*

By R. Lee Sanders, M. D., Anderson,
S. C.

In approaching this subject of toxemia incident to pregnancy I do so feeling my weakness and inability for it is of such questionable origin there is no rational treatment. However, this weakness on paper is very tame compared to my feeling when confronted at the bedside by this dreadful malady. In former days the midwife represented the human side of obstetrics, and whether this position was

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due to natural sympathy, dexterity, common sense and shrewdness, I know not, but up to the limits of her education she has filled this all-important branch with distinction. Through scientific education, wide observation and experience, her male competitors have unfairly triumphed over her until now man occupies almost without exception the constant position of accoucheur. Man has gone far beyond her with his scientific explorations because his advantages have been many and varied and he has been conqueror in many fields. He has mastered the appendix, defied the pelvic organs in all their pathological states, made clear the road to recovery in gall bladder, stomach and many other abdominal troubles, found a remedy for diphtheria, tetanus, cerebro-spinal meningitis and other once deadly and dreaded diseases; but it yet remains for unborn generations to fathom the depths of that malady which wrecks homes, leaves poor, motherless children to be reared in orphan asylums, fathers and husbands to trod a lonely, untimely path where joy and happiness should be the paving—that awful, pitiable condition we know as eclampsia.

Its etiology, pathogenesis, symptomatology and treatment have all been studied, written about and treated for many years but it seems to me in my observation and experience it grows more abundant in numbers and more awful in consequence each year. During the past year and the few months of this year, I have seen more sad cases than in any previous period covering the same length of time. It has been claimed by one writer in the past that the condition is infectious and, judging from the succession of cases we have had in our community and are having now, he was not such an unreasonable man after all.

Let me say just at this juncture, that

since man has triumphed over woman in the art of midwifery and he has become the now dignified obstetrician, his duties are far broader than is generally understood by the average man acting in the capacity of "grannyng a case through" or "catching the baby." In my mind, the word "obstetrics" should mean the actual supervision of a pregnant woman from the early months of her gestation to the final culmination of the whole process, when the child is delivered, the puerperium is gone through and the mother is able to attend to her offspring. If we are going to supplant and oust the midwife, we should do it from a scientific standpoint and not alone by the mechanical accouchment during parturition. Until we can all teach our people to place themselves in our hands early and be under constant supervision and until we ourselves can realize the gravity of this dreaded condition, we may expect a repetition of these same sad scenes from year to year.

This subject can best be discussed under two heads, viz—first, the prophylaxis, and second, the control of eclampsia. If the etiological factors entering into the make-up of this syndrome of symptoms were clearly set forth and understood as in many infectious and contagious diseases, as, for instance, typhoid, tuberculosis, malaria, etc., we could direct our preventative measures more logically and definitely. But since it is yet a mooted question, we can but do as we do on other occasions—take a general shot at the whole economy. As causative agents, we know that primipara are attacked three to one more than multipara, that there is a tinge of heredity seen in it, that in cases of twins the toxicity is often greater, that excessive nervous irritability plays a decided role in the production of eclamptic symptoms, but we do not know if this

is a urameia secondary to the compression of the ureters or a septic condition caused by bacterial invasion—some observers have found micro-organisms in the blood and since infection often follows eclampsia, the disease being of a more or less febrile nature frequently following an attack of tonsilitis as it does; still others claiming that infection gains entrance through the lungs and others that bacteria pass in through the genitalia. It does seem that the micro-organism theory is very plausible—or whether it is a liberated poison in the placenta. The most reasonable etiological factor is that it is a true toxemia resulting from a poison or poisons circulating in the blood which produces a more or less necrosis of the liver and directly or indirectly degenerative conditions in the kidneys, and convulsions by the direct action of the toxins on the cerebral cortex.

The prophylaxis of toxemia resolves itself into the maintenance of the body equilibrium, in that its metabolism and its converse may go on proportionately and especially that we maintain excretion. Remembering that the pressure incident to the growth of the pregnant uterus interferes with the normal circulation, we can at once advise the laying aside of any article of clothing that will in any way make external pressure. Corsets should be forbidden absolutely on account of the pressure made on the colon, obstructing and arresting its powers, thereby predisposing to constipation, and also the pressure on the vessels interfering with free circulation. This is advice that is always expected but rarely taken but if we give it then our skirts are clear. All tight clothing that is supported from the waist should be dispensed with and only that suspended from the shoulders should be worn. Tight shoes and garters around the legs should be

forbidden on account of obstructing the circulation in the lower extremities.

The diet should not be too rich in nitrogenous material, sweets and rich pastries. Fruits should be given in abundance and vegetables in moderation. Too much stress cannot be laid on drinking large quantities of water. It will dilute the poison and flush the system. I once heard a prominent lecturer say that if he could get his patients to drink a gallon of water each day his toxemic cases would be almost nil, and I certainly agree thoroughly with him. Sweet milk is more or less binding, but if we can get these patients to drink buttermilk it will be of value.

The skin should receive its share of attention for it is one of the most important emunctories of the body. Frequent bathing in tepid water, massage and the wearing of flannel or other suitable clothing next to the skin is necessary. Exercise should always be insisted upon unless contraindicated by some intercurrent trouble. Fresh air and outdoor exercise will aid elimination materially.

The bowels and kidney secretions should be noticed very carefully. No patient should go a single day without an evacuation from the bowels. For this purpose small doses of calomel occasionally does good, keeping as it does the liver stimulated to throw out a great deal of this poison. Other purgatives should be of a variety that is not irritating nor have to be taken in increasing doses, but ones that will secure watery actions, such as cascara, colocynth, rhubarb, licorice, etc., and the salines. We should tell the expectant mother that she should void a given amount of urine each day and anything below this quantity should be reported to us at once. Urine should be examined once a month and during the lat-

ter months every two weeks. This examination should be a microscope as well as a chemical one for it is by the microscope that we determine the condition of the parenchyma of the kidney. A decrease in the amount of urea excreted should be looked upon with suspicion. This will entail a good deal more trouble on the patient and physician but "eternal vigilance is the price of safety."

Toxemias often slip up on us unawares, but if the case is under our constant supervision we may recognize its onset first by the character and amount of urine excreted and second, by disturbances of the nervous system, pain, headache, thirst, disturbances of vision, taste, hearing, sleeplessness, nausea and vomiting, etc. Oedema of the legs and feet and albuminuria being of less significance. Many cases showing marked swelling of the extremities and presence of albumen in the urine have gone successfully through the parturient period in all safety while others with disturbances of the nervous functions have been seized in the clutches of eclampsia almost without a warning. Another prophylactic signal that has come into common use now is the use of the sphygmomanometer in determining the blood pressure. When the pressure reaches 160 to 200 mm of mercury I always feel that I must bear down on the emunctories and secure more elimination.

The control of eclampsia is not always a safe and easy procedure. The indications to be met are (1) control the convulsions, (2) empty the uterus, (3) elimination. The eclamptic fits can usually be controlled or held in abeyance by the inhalation of chloroform. Chloral, bromide or veratrum may be given to lower blood tension.

My usual practice is to do a venesection immediately and bleed for effect. Often times a quart can be taken out.

The question now comes up, how are we going to empty the uterus? Abdominal or vaginal Caesarean section in my mind is the quickest, safest and best way and I think it certainly ought to be practiced in all cases when not contraindicated and where conditions of surroundings will permit. It is a very simple operation and quickly done and the mortality of both mother and child will be rated lower. Caesarean section should not be attempted if the labor has progressed to the second stage, the membranes have been ruptured and frequent vaginal examinations made, for infection will almost certainly follow and a fatal peritonitis, diaphragmatic abscess or other serious complications may follow. If the convulsion comes on in the first stage of labor and the patient can be quickly removed to a good hospital and the operation done by an experienced operator, I think this by far the choice of procedures. If this is not feasible then cervical dilatation and delivery by version or forceps should be done. It has been my custom of late to bleed all the patient will stand and fill the vessels with intravenous saline solution very hot, up to 106-110 F. I feel that this dilutes the poison still more and also acts as a stimulant in resuscitating the patient from the unconscious eclamptic coma. Dr. Crile advocates blood transfusion and in the hands of an expert I feel sure that it will be a life saver at times. He cites a case thus: "Puerperal eclampsia; patient brought to hospital in unconscious condition; immediate Caesarean section; delivery of living child; blood transfusion for 35 minutes with simultaneous bleeding of 140 cc; hot packs, constant rectal irrigation, etc. Uninterrupted recovery."

Elimination can be secured best by hot packs, big doses of calomel poured on the back of patient's tongue, croton,

oil given in M ii doses and salines by mouth as soon as patient can swallow. After all this has been done carefully and quickly and with painstaking interest, we may expect recovery in a great many cases if the pulse rate does not go high and the tension can be kept low. At best, the mortality rate far exceeds what the young man expects when he has heard his eloquent professor of obstetrics finish a course of lectures on this subject.

Society Reports

ANDERSON COUNTY MEDICAL SOCIETY.

The Anderson County Medical Society met in the parlors of the Hotel Chiquola Wednesday, May 7th, at 12 o'clock. In the absence of the President, Dr. J. O. Sanders, the Vice President, Dr. S. C. Dean, presided at this meeting. Those present were Drs. Haynie, Todd and Hearin, of Belton; Drs. Ross, Henry, Nardin, Young, Wilhite, Duckett, S. C. Dean, J. C. Harris, Townsend, R. L. Sanders and Olga V. Pruitt. Dr. Wade Thompson was present and we were glad to have Dr. Bruce, of Greenville, with us.

After the reading and adoption of the minutes of the last meeting, resolutions concerning the death of Dr. J. M. Richardson were adopted by the Society.

Dr. A. L. Smethers was elected to membership.

The delegates of the State Medical Association meeting in Rock Hill gave a very interesting account of the proceedings of this meeting.

The scientific program consisted of one paper, "Value of the Microscope in Diagnosis," by Dr. Olga V. Pruitt.

On May 21st the mid-monthly meeting of the Anderson County Medical Society was held with the average number present. This was a very interest-

ing meeting. The program consisted of several instructive cases reported by Drs. J. R. Young, Duckett, R. L. and J. O. Sanders and W. F. Ashmore. All of these were very freely discussed.

A committee was appointed to make arrangements for a public meeting of the Society to be held in June.

OLGA V. PRUITT, Sec.

FLORENCE COUNTY MEDICAL SOCIETY. IN MEMORIAM.

Dr. T. B. Hinnant, of Lake City, died on Wednesday morning. He was sixty-three years old and leaves a wife and six children. Few men have been more successful in the practice of medicine. He was regarded by the medical profession as far above the average in ability and force of character. As a money maker he was not so successful as many in his line, but he had other fine qualities that placed him high in the estimation of all who knew him. He was a sincere Christian gentleman in the true sense of the word. Hypocrisy had no abiding place in his manly make-up. Unless one knew him in his best days, they could form but little idea of the real strength of character that he possessed. Dr. Hinnant was not an ordinary man by any means. He possessed qualities of man and heart which placed him along with the very best men of the state. He never passed for his full worth except to his most intimate friends, and they had to get close to him to find out his real worth. We have often heard our old father say in speaking of the leading men and physicians, "Hinnant is the equal of any of them." As a neighbor Dr. Hinnant was strong in his friendships, and as a friend true to the last. As a citizen, he commanded the esteem and respect of all. As a husband and father, he was all that heart could wish. He loved his family devotedly and nothing was too good for them. While the

shock will be severe on his family and the community, yet nothing like it would have been had he retained his physical strength to the last. For some years his health had been failing rapidly. Good-bye old friend. You will certainly be missed, but we hope to meet again.—*County Paper.*

W. S. LYNCH, Reporter.

Public Health Department

THE TYPHOID SEASON.

The recently published report of the Department of Health of this city presents the gratifying information that the number of cases reported to that office during the year 1912 was smaller than is shown on its records in the previous history of the department. A large share in this favorable record may be attributed to the energetic activities of the Board of Health. Considerable influence has been exerted by the missionary propaganda upon the increasing interest of the people who read newspapers. Many newspapers have, like *The Sun*, inculcated lessons of hygiene with regard to the menace from flies, unboiled milk and contaminated water.

We would call attention at this opening of the vacation season to a striking warning in the Board of Health report which has often been adverted to in these columns. Among the causes of fever in New York city are "infected milk and infected water, the last mentioned operating for the most part by the infection in country districts of people who during the summer seek the country for the purpose of improving their health," and, we may add, more frequently for the purpose of pleasure. The former, being enfeebled, present a more congenial soil, as it

were, for the germination of the typhoid germs.

This warning against flies and polluted water is significant to all, whether they reside at a luxurious seaside hotel, boarding house or farm or in a private house. It would add to the interest of life to devote a brief time at stated intervals to inquiry and personal observation on this subject. In hotels and boarding houses the fly pest must be removed. Protest, agitation, threat of departure must be used to abolish the contact of flies with food. If no other measure can be reached, wire screens over every dish, especially of sugar, butter, syrups and preserves, should be insisted upon. In farmhouses it would be an act of wise economy for the boarders to club together for the purchase of such covers to be presented to the host.

The polishing of plates with the napkin before use, unconventional as such a practice may be, is advised in all dining rooms where flies are abundant, because these insects are probably more abundant in the pantry where the plates are washed and dried.

Almost invisible contaminating material may be deposited during the brief alighting of a fly that may have recently emerged from a garbage or offal receptacle. Screening of all windows and doors not only promotes comfort but prevents access of these pestiferous carriers of infection to the kitchen, pantry and dining room. An occasional inspection of the premises may reveal possible sources of infection that may be advantageously if delicately communicated to the host; and, if not corrected, departure would appear to be an effective alternative.

Especially imperative is this mild detective work around farmhouses, the owners of which are usually quite innocent of any knowledge of sanitation. The source of the drinking water

should be investigated; not by interested parties, however.

When a number of cases of typhoid fever have developed in the house or its vicinity, it is wise to depart, no matter how plausibly the interested parties may explain the incident. An abbreviated vacation or a troublesome transfer to a more wholesome locality may prove economy of time, money and happiness, if not the saving of life. When in doubt depart, is a good rule in these circumstances.

When the reorganized State Health Board shall devote most of its activities to the rural districts, as is done in Germany, for the purpose of tracing every case of typhoid fever to its possible source, as is now done in the cities, the health authorities of the latter will be spared this labor, because the disease germs will be excluded. Several years ago a New York physician stated before the milk committee that he had visited the large Johannes Hospital in Dresden. Finding only two cases of typhoid fever in this enormous institution, he learned upon inquiry that the German government officials are so alert in the dairy districts that no source of infection can escape them. On his return to New York two weeks later he saw during the first week two private cases of typhoid fever and three in a hospital of one-eighth the capacity of that at Dresden.—*N. Y. Sun*, May 22, 1913.

PURE FOOD LAWS.

The active enforcement of the State pure food and drug laws and of several other laws such as that relating to the sale of unsound or tainted meats and decaying vegetables, fruits, etc., is to begin within the next few days.

Commissioner Watson, of the Department of Agriculture, announces the appointment of Dr. John W. Douglass to be the State inspector in charge

of the field work under these laws. The appointment was made under the authority given by the feed and food and drug laws enacted by the general assembly at its last session. Dr. Douglass will report for duty on the 16th inst., and on that day will accompany Commissioner Watson and Chief Chemist Summers to Mobile to attend the annual meeting and conference of the pure food and drug control officials of the South.

Dr. Douglass is a graduate of the South Carolina Medical College, where he received his degree of M. D. He was a classmate of Dr. Coward, the wideawake official of the State Board of Health, and for a time practiced medicine in partnership with Dr. Hayne, the State health officer. Recently Dr. Douglass has been engaged in commercial business relating to both medicine and pharmacy.

He is a native of Fairfield county, hailing from Douglass. He is a cousin of Charles A. Douglass, the brilliant native of Fairfield and former resident of Columbia, who is now regarded as one of the most prominent attorneys of Washington, D. C. Dr. Douglass, both by training and experiences, seems particularly qualified to discharge the delicate and exacting duties that he will now be called upon to perform.

For some time Commissioner Watson and Chemist Summers have been busy equipping the State laboratories for the efficient handling of the scientific work that will be required in connection with the pure food and drug work under the new laws and Mr. Watson stated on Saturday that when the active work in the field began everything would be found ready in the laboratory for the conduct of this work from the very first day with as much smoothness as if it had been established for months.—*News and Courier*, June 10th.

Current Medical Literature

CAMPHOR IN THE TREATMENT OF PNEUMONIA.

Pneumonia, called by Osler a self-limited disease against which no method of treatment is of any avail, is, in the experience of very many able and observant practitioners, one of the most amenable to proper treatment, except in rare cases of massive infection, of all the infectious diseases. Forty years ago James R. Leaming proclaimed the curability of pneumonia by a massive dose, twenty grains and more, of calomel—an early and empirical application of Ehrlich's theory of *therapia magna sterilisans*. He practiced what he preached, for when he himself was attacked with the disease he took calomel—and recovered. Ten or fifteen years later Andrew H. Smith and others demonstrated the value of the salicylates and of creosote carbonate in the specific treatment of pneumonia.

Some years ago August Seibert, of this city, published a report of a number of cases of pneumonia treated by hypodermic injections of large doses of 20 per cent. camphorated oil, and also gave the results of a number of experiments with camphor injections in rabbits previously inoculated with cultures of the pneumococci. The reports were published in the *Munchener medizinische Wochenschrift*, No. 36, 1909, and in the *Medical Record*, April 20, 1912. Seibert's observations have been confirmed recently by Leo of Bonn in two communications to the *Deutsche medizinische Wochenschrift*, No. 13 and 15, 1913. In the first of these the author says that the experiments thus far made in cases of pneumococcus in-

fection indicate that "camphor has a specific action against pneumonia," and in the second he quotes from Ehrlich to the effect that Bohnke, experimenting on mice in the Institute at Frankfort, had succeeded in curing pneumococcus infection by subcutaneous injections of camphor oil. Iverson also, writing in *Uralch* of January, 1912, reported good results with injections of 20% camphor oil, and noted that the toxemic symptoms were markedly ameliorated in all cases, even in the alcoholics and in those who finally succumbed. These observations of Seibert, confirmed by workers in Bonn, Frankfort, and St. Petersburg, the favorable results obtained by Wright in the use of mercury succinimide (*Medical Record*, June 1, 1912,) and the earlier successes with creosote carbonate, the salicylates, and calomel should suffice to down the pessimism which so long dominated the therapeutics of pneumonia and other infectious diseases, but which is now disappearing along with the dying school of therapeutic nihilists.—Editorial, *Medical Record*, June 7.

HOME VISITATION—AN INDISPENSABLE METHOD OF PUBLIC HEALTH CONTROL.

One of the most interesting developments of modern public health work is the emphasis placed on individualizing the supervision of each case through home visitation. Originally developed by the health department of New York city in the campaign against tuberculosis, similar methods were first employed in general hospital and dispensary work, if we remember rightly, by Cabot, of Boston. They proved remarkably successful, and have since been copied in other cities, so that now they constitute a recognized function of hospital and dispensary administration. Home visitation undoubtedly supplies the surest way to reach the in-

different and ignorant portion of the public, and everyone familiar with public health administration knows that this constitutes the great obstacle in the successful prevention of disease. These people cannot be reached through public lectures, or through printed circulars of information, or yet through exhibitions: such methods are all far too indirect, too impersonal. But visit the people in their homes, show them that your interest is personal, help them with their individual problems, teach them the wherefore—and the solution of many a difficult health public problem lies close to hand. This has been well shown by the success attending the work carried on against tuberculosis, and by the splendid results obtained in New York in recent years through the campaign against infant mortality.

Similar methods might well be employed against venereal diseases, than which there is no greater menace to the public health. And since, as already stated, the object of home visitation is to appeal directly to the patient concerned and overcome his indifference and ignorance, it would seem advisable to confine this work, as in tuberculosis, to persons treated in free dispensaries and hospitals. Physicians, and not nurses, should be employed to make these visits, and particular emphasis be laid on instruction as to the necessity for proper and adequate medical treatment, and as to the spread of infection. It is clear that this affords a definite field of activity for the public health authorities, and one constituting a useful and necessary adjunct to the work of private physicians, hospitals and dispensaries. The medical profession has strongly objected to the health authorities undertaking the *treatment* of the venereal diseases by means of dispensaries, but the plan here outlined admirably supplements

and in no way conflicts with the work of existing agencies. It is evident, from what has been said, that the only effective means of reaching a very large part of the population will be closed to the public health administrator if home visitation is interfered with, and it is equally clear that there can be no home visitation without notification to and registration of the cases by the health authorities. It may be that the name "clinic" or "dispensary," which is proposed by the health department for its diagnostic stations, is objectionable to the practising physician, but it is clear that the department has no intention of interfering with the practice of the physician; on the contrary, patients will be advised, if the case has been diagnosticated as syphilis, to consult a physician and to follow his advice, and as the visiting physician employed by the health department are not allowed to solicit such patients, these patients will go back to their own physicians. Besides, the objections raised against reporting institutional cases to the health authorities are not in reality tenable, for at the present time much more than the data required for registration is entered in the hospital histories, and these, as is well known, are accessible to nurses, orderlies, clerks, and even to other employees of the hospital.—Editorial, *New York Medical Journal*, June 7.

From the Lay Press

FRIEDMANN AND THE BOARD OF HEALTH.

N. Y. Evening Sun, May 30, 1913.

The Board of Health has been obliged to amend a section of the Sanitary Code in order to deal effectually with what is conceived to be the peril of the new Friedmann Institute. No doubt there will be some to condemn

this action as unjust and tyrannous, yet few, we apprehend, will believe that a course so drastic could have been determined upon without weighty and potent reasons.

When Dr. Friedmann came to this country he was full of the most plausible professions about his intentions. He was not here, he explained, upon a commercial errand, but was rather concerned to lay his remedy before impartial witnesses, to instruct them in the use of it and to let them judge for themselves of its efficacy. He has failed in his promise to make known the particulars of his secret, his conduct of the cases under his charge has been open to criticism, and reports from several quarters concerning the progress of the many patients who have been treated with the new remedy have not been wholly reassuring.

The special report upon which the Board of Health relies shows that during the administration of the treatment

"many patients have suffered serious and unduly rapid progress of their disease," and it is pointed out that certain tests now in progress with regard to the efficacy of the remedy are in effect "unsatisfactory, unscientific and practically futile," to say nothing of the possible "danger to individuals and to the public health." Impartial observers will, we believe, recognize the justice of prohibiting the use of living antigens in secret remedies which have not been duly tried.

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EDITORIAL

JOURNAL NOTES.

OWING to the serious illness of the official stenographer of the Association we have been much handicapped in getting out the Journal since the meeting. We have been obliged to omit much of the valuable discussions.

We are making an effort to improve the Journal both in its make-up and scientific aspects.

We desire to call attention to our advertising department. We hope that the members of the Association in every county in the state will take greater interest in this department. We believe there is a legitimate field of advertising in almost every

section of the state and that the Journal would secure this if the members of the Association really made an earnest effort in this direction.

We are anxious to have all of the meritorious papers presented before the District and County Societies and reports of every society meeting regularly.

In short, we ask co-operation on the part of the owners of the Journal!

THE DISTRICT MEETING AGAIN.

WE have had occasion to call attention to the great value of the District Medical Association several

times. The reports of our Councilors and other officers indicate that this branch of the State Medical Association deserves much at the hands of our membership. There are many ways in which the District meeting can be helpful.

We commend the idea of encouraging the members themselves to take an active part in reading and discussing papers. We are inclined to discourage any tendency to give most of the time to invited guests.

THE CONFERENCE FOR THE COMMON GOOD.

ON August 6th there will be held at Columbia a Conference for the Common Good. It is highly probable that Dr. Wm. Weston, President of the South Carolina Medical Association will make a special call upon the membership to take part in the deliberations of this Conference. Dr. Weston has been one of the foremost promoters of this organization and we should make an extra effort to attend and participate in its deliberations.

The scope of the Conference is quite comprehensive and will surely result in great benefit to the State.

OPEN THE DOORS OF THE MEDICAL
COLLEGE OF THE STATE OF
SOUTH CAROLINA TO WOMEN.

WE know that the trustees and faculty of the new State Medical College will have many weighty problems to solve in the near future and we do not wish to add to their bur-

dens but we believe that the college should be open to both sexes. We are mindful of the fact that for several years the institution received women and quite a number of the most prominent women practitioners in the state graduated there. It seemed expedient however a few years ago to withdraw this privilege.

We believe that the woman has a prominent place in medicine and that the State of South Carolina should not deny them the right to secure a medical education. We do not know the plans of the new board of trustees and therefore this suggestion is made in the light of the fact that the doors of the old college were closed to women and for fear this precedent maybe followed by the new institution.

Some of the very best workers in the State Medical Association, in our County and District Societies and in our Public Health work are our medical women. Several of our most successful societies have had as their Secretaries for a number of years women physicians. There are certain phases of medicine in which women physicians are peculiarly fitted and we have such fields in this State.

In considering the matter we should bear in mind that at the present time there is only one medical college exclusively for women in the United States, The Woman's Medical College of Pennsylvania. There have been others but they have not succeeded and therefore the average female medical student must look to the co-educational institution for her education. While the graduates in America may have fallen off for a few years past this is only temporary, for in other parts of the world

they have rapidly increased and we believe it will be so here.

If a sufficient number of our citizens, especially our physicians, would endorse the proposition alluded to above we believe the Medical College of the State of South Carolina would open its doors to women.

THE POST GRADUATE
MEDICAL SCHOOL.

POST graduate medical instruction in this country has not been as satisfactory as it should be. This statement will probably be borne out by most of those who have had occasion to seek such instruction or investigate the methods of teaching.

It is most fortunate that the House of Delegates of the A. M. A. recently instructed the Council on Medical Education, which has done such extraordinary work in behalf

of under graduate instruction, to turn its attention to post graduate instruction as well. We believe that a Committee with such great powers and such vast experience as the Council on Medical Education of the A. M. A. has developed will speedily place post graduate instruction on a much more practical basis and that the average physician in the future will derive far greater benefits for his outlay of time and money than he has in the past. In all probability the courses of instruction will be lengthened and systematized.

The student physician like the future under-graduate will have a better opportunity for research in the laboratory and at the bed side of the patient. He will be required to stand an examination and then his certificate will really mean something.

There is a crying need for post graduate instruction to be placed on a higher plane.

Surgery and the General Practitioner.

BY HUBERT A. ROYSTER, A. B., M. D.,

Surgeon to Rex Hospital; Surgeon-in-Chief to St. Agnes Hospital,
Raleigh, N. C.

Address in Surgery before the South Carolina Medical Association, April 17, 1913.

"It is not necessary for the practitioner to act surgically, but it is imperative that he should learn to think surgically."

So speaks the greatest surgeon of our time, Theodor Kocher, of Berne. There is a world of wisdom in what he says. Justly interpreted his apho-

rism means that the physician should put himself in the attitude of taking the profoundest interest in surgery and, if he has not the time or the inclination to master the details of its practice, he should at least endeavor to learn its principles. There is, indeed, a common ground on which all

medical men must meet—the basis of an earnest desire to find the truth. Formerly the surgeon was the barber; he "did the cutting" under the direction of the physician. Now both are equally concerned with the diagnosis to the end that suffering may be relieved and life saved whether by medical or by surgical means. *No case can receive proper consultation or be intelligently referred, unless physicians keep up with the progress of surgery; and this implies a corresponding obligation upon the surgeon to be always abreast of the rapid strides made in medical research.* Surgery is more spectacular and its results are more immediate and more evident, but there may be serious doubt if the advances in surgery have been any greater or more far-reaching than those in internal medicine. And it must never be forgotten that the laboratory has made the modern surgeon.

The practitioner should not only know surgery, but he should be expected to do surgery as it comes to him—to do more and more of it and to do it better and better. *He must deeply understand, however, that the study of surgical principles is his duty and that these principles are the same wherever they may be applied.* Now and then one hears a physician rather apologetically lay claim to doing "minor surgery," as if this were the portion left him, admitting that the distinction between a major and a minor operation depends upon the one who performs it. I have already paid my respects to this question elsewhere* by calling attention to the fact that no one has yet successfully established a dividing line between major and minor operations. I suggested that the best definition of minor surgery was: "that part of surgical practice which is done by the minor surgeon." Let every physi-

cian tune his judgment to his conscience, realize his limitations and do real surgery and not call it minor surgery. There is hardly a so-called minor operation which may not become a major operation at any moment; while the more "minor" the surgeon, the more "major" the operation is likely to be. Reproach is too often brought upon the art, both by its own devotee and by its over-ambitious admirers, in essaying what is beyond them.

In the study of an actual case, it is natural to ask one's self: is this a medical or a surgical case? But this question is not to come uppermost until the diagnosis itself is determined. *Division into surgical or medical will be based upon calm judgment when all the facts are in hand.* The diseases are pretty well classified now, though the line must not be drawn too sharply; for some are still on the border and their elucidation will require all of the keen discriminating study which each individual case admits. Most cases may be frankly and easily placed in one or the other class.

If it is a case demanding surgical treatment, when shall interference be advised? This is the point for the surgeon to speak on. Far too often he is given no choice, for, as a rule, when he is called there is only one thing to do—operate. Sometimes it is of much greater importance to know when not to operate. It is difficult for all of us to get out of our heads the idea that surgery is the last resort. Certainly no one could presume to maintain that it ought, in most instances, to be the first resort; but it might at least be regarded as an equal resort, and a very early one when its aid must inevitably be invoked. We all have seen cases held

*Trans. Tri-State Med. Asso. 1909 p. 317.

back with disastrous results simply because one or more of the classic symptoms were lacking to complete a typical clinical picture. Remember that *cardinal symptoms are sometimes terminal events*. Emergencies are put up to the surgeon many times when they might not have been emergencies, if the surgeon had been allowed the privilege of seeing the patient along with the practitioner. But emergencies will come, and the real surgeon will not turn from them.

Certain warnings from my own experience may not be out of place. Most of you are perfectly familiar with these pitfalls and have learned to avoid them, but there may be some who do not yet heed their full significance. For the sake of all of us it is well to emphasize these suggestions in regard to referring patients for operations. We cannot too strongly urge caution in the matter of *advising neurasthenic patients to submit to operation for the purpose of "helping their nerves."* Such a predicament is chiefly to be met and always to be feared in the gynecological cases, where the woman and the womb will be confusing elements. The discovery of the lesions is usually not difficult and the complaints are easy to set down, but the perplexing problem is to connect the findings and the symptoms in the way of cause and effect.

Their connection must be proved, as far as possible, or else no surgical treatment is to be even hinted at. True disability and well-marked disease should not go unrelieved but any interference with the object of specifically benefitting shattered nerves will generally bring trouble upon patient, practitioner, and surgeon.

It is better *not to tell the patient what the surgeon will advise*. He may suggest a different method of procedure from that outlined; he may

not even operate at all. Individual judgment governs matters like this, and in each case physicians and surgeons are to be the closest possible allies; the final decision, whatever it may be, should be reserved for the patient's benefit. Again, it is decidedly best *not to delude the patient in getting him to the surgeon*. That is, do not say: "Just go for the examination, you probably do not need any operation;" for operation may be advised, and it would then be troublesome to persuade the patient to accept it. Situations of this kind are brought about thoughtlessly and through kindness; nevertheless they are embarrassing and are to be avoided. Furthermore, it is *injudicious to tell a patient at any time: "You must never let any one give you an anesthetic and you must never think of submitting to an operation—your heart is not good;" or "your kidneys are not sound."* Such statements may or may not be true—usually they are not. Time after time such advice is repeated by patients whose heart disease was a myth or whose albuminuria was an indication for rather than against operating, and who got through with their operations without the slightest trouble. Such admonitions, if not true, may keep some person from having a life-saving operation performed; and, if the conditions are actually present, it is safer to leave them to the judgment of the operator at the time. General remarks of this nature are on a par with making capital by telling a woman that if she "ever has another baby it will kill her." How many thousands of such predictions have missed fire!

Furthermore, the *neglect of the practitioner to furnish a working account of the patient's condition* may cause loss of time and much inconvenience. Not that I am arguing for the consultant to take anything

for granted. It were far better to consider cases entirely on their own merits, since expressed opinions may prejudice the findings. But the surgeon needs every bit of evidence that he can get, both past events and also the particular things leading up to the present illness. A former typhoid fever plus recent attacks of "acute indigestion" would be, for example, sign posts pointing to a probable gall-bladder infection. In any diagnosis it is invaluable to have such facts marshalled in their order, and their significance properly determined. It just occurs to me to mention the instance of a woman whose kidney had to be removed for pyonephrosis and who stated that some years before she had a severe malarial fever and that she began to go down hill from that time. From the history and in the absence of a blood-examination it is more than likely that this attack was not malaria, but that it was the beginning of a pyelitis in which the infective agent finally destroyed the kidney. If correctly interpreted, a fact of apparently small importance may have tremendous bearing in a case. That is what we are all to be—interpreters of facts. More than that, it is our business to play the detective in getting the facts.

Nor should the practitioner fail to follow his cases to the operating table, there to check up himself (as well as the surgeon) and to learn his "living pathology." The post-mortem room may tell us what killed the patient, but it teaches us rarely how to save him. Autopsies are for the most part records of the last pathological stages and may exhibit nothing of the lesion as it existed during life. These are the lessons of the operating room (and they are to be learned by all those who frequent it): That we shall in every case cause ourselves to think in terms of possible surgical

relief; that "too late," an expression always replete with sadness, and heard much too often, is a rebuke to somebody at sometime, while we rarely, if ever, see operations done too soon; and that there is no escape from surgery by putting it off, if the interference was necessary at all. At the same time all operative procedures demand careful and serious and purposeful consideration. Not even the simplest manipulation is to be advised or performed without a definite aim for good and, if this does not seem to outweigh every other concern, no intervention is to be thought of. If we cannot do the patient any good, we should at least do him no harm. The mission of surgery is to restore, if we can; to remove, if we must. At all events, we must save more than we lose and we must repair more than we impair. Undoubtedly the era of "preventive surgery" is coming but not until we recognize that honest, efficient surgical work is more life saving than scholastic delay, mental trepidity and last resort consultations.

To be more particular, there are three important relations of the general practitioner in respect to surgery. These relations come as a sort of corollary to the discussion. The first is *the matter of giving advice*. Many patients are going to their physicians sincerely seeking counsel in regard to the removal of growths, tumors or deformities which they themselves have discovered. There is great possibility of harm here. Patient after patient is doomed because someone in whom confidence was placed advised inaction. Especially is this the case in the class of new growths represented by pigmented moles. In the experience of us all there hardly passes a week in which somebody is not told to leave these excrescences alone and to regard them as perfectly

harmless. Even doctors have been guilty of saying: "Don't have it cut out; if you do, it will turn to a cancer." As a matter of fact, the reverse is very often quite true—if it is not removed, it may eventually terminate in malignancy. Fine discriminating judgment is needed for these questions; and if one is to err, let it be on the safe side.

In the second place, the physician should be most deeply concerned with surgical science *when it comes to doing his own surgical work*. If he is engaged in general practice, he will have few referred cases, but there will fall to his lot all sorts of patients needing immediate or more carefully planned surgical attention. Fractures, dislocations and sprains are largely today in the hands of general practitioners the world over. Yet to my mind these injuries require at times greater skill and more correct surgical judgment than does ordinary operative work. Moreover, they get the physician into trouble more surely than do any other class of ailments. Outside of the regular hospital cases, seldom am I consulted in a fracture except when there has resulted non-union or faulty union. My firm conviction is that the fate of every fracture, dislocation or sprain rests chiefly with, and should be settled by, the one who applies the first dressing, and that one who attempts this practice ought to be skilled in such work. If we as surgeons gave our personal attention to these cases, there would be less of the present lay enthusiasm for the operative treatment of fractures. Here are some things which the practitioner may find of interest, though not new, viz: that fractures around the elbow are best treated in acute flexion, with the hand to the opposite shoulder; that a fracture-dislocation at the shoulder joint is an acute surgical emergency, just as

much as any strangulated hernia, and that it should be cut down upon, if one is not absolutely certain of its reduction—which is generally the case; that a sprained ankle is to be strapped at once and not enclosed in a plaster cast and the patient is not to go to bed, but keep on his feet. Further it will be found that abscesses, including buboes, can be opened by a small incision, evacuated and then injected with melted iodoform ointment with much more comfortable results than with the old long incisions and packing.

The third point of view cannot be stressed too strongly even at the cost of repetition. I allude to the matter of *knowing when, where and how to refer patients for operation*. Intimate association with surgeons and surgery is necessary for the decision. It is no light burden, no easy question for the attending physician to handle. Above all, the practitioner need not feel called upon to select a surgeon who is an acquaintance, a friend or even his benefactor, unless that surgeon be conscientious and competent. The interest of the patient is paramount. But of what little consequence is the service of the most resourceful surgeon if the medical attendant through ignorance, carelessness and lack of moral perception does not act with prudence and promptitude? There rests upon all family physicians everywhere a heavy responsibility; and to their eternal praise be it said that in the vast majority of instances they are meeting this trust wisely and well. To them belongs all the credit when a patient comes in good time, and to them is not due all the discredit when the opposite happens; for we need not be reminded that occasionally, forsooth, sick people and their lay consultants do not always accept advice when it is given. But the attending

physician must ring clear on this: his duty is to know, to act, to co-operate; to be swayed by no purpose beyond saving the patient; to proceed without fear, favor or folly and to bring to the issue every particle of professional knowledge, human judgment and moral courage of which he is possessed. His is the leading part, the most momentous of all.

An equally heavy obligation rests upon the *surgeon* to direct the patient back to his physician when the operation and its immediate effects are accomplished. Let no one think that an operative recovery means complete restoration to health. It is only the beginning. The physician who sent the case is, or ought to be, the one most fit to follow up the post-hospital care. How helpful, then, it is for the doctor to witness the operative procedure and to be always eager for all the surgical knowledge that he can appropriate!

It is an every day affair for the doctor to have the opportunity of thinking in terms of surgical relief. He may ask himself if the *chronic cases*, which seem not to get well and not to get worse, could not be permanently cured by conservative operative measures. There will come chances now and then for looking closely into some of the improperly-called *neurasthenics*. Constantly recurring attacks of pain, especially abdominal, invariably demand assiduous investigation with the hope of surgery held out. The vermiform appendix has been on the boards for a long time and "it is a faithful saying and worthy of all acceptance" that *appendicitis* is a surgical disease. Yet it would appear that this is by no means a settled problem and that the last word had not been said; for we are still getting the huge abscess cases, lives are lost without operation, and a few are past help when given

this opportunity. *Uterine fibroids*, regarded by some as harmless and innocent, are producing deaths which are attributed to other causes. Through degenerative changes in the tumor itself, by the production of atrophy of the heart muscle, and as a consequence of the accompanying anaemia, the fibroid by its presence does more harm than the operation for its removal. There is scarcely any reason left why a woman should keep a fibroma in her uterus.

Gall-bladder disease has gone through the same stages of opinion as appendicitis, and we have ceased to wait for jaundice before advising operation. It makes little difference whether stones are present or not; the infection is the thing and only one other element is necessary for stone production—stagnation. One must instantly grant that diagnosis here is beset with difficulties. Prolonged study of the itemized history, tedious physical examination and laboratory methods all contribute their part. We do not operate on these cases without seeking the guidance of a capable medical adviser, who is alive to the possibilities and limitations of both surgical and medical treatment. Listen to what a militant internist, Frank Billings has to say: "Infection of the gall-bladder occurs, as a rule, in the afternoon of life. The individual has the degenerative changes of his age. If he has infection that is walled off in his gall-bladder or if it is associated with the gall-bladder and gall-tracts perhaps not enough to make him an invalid, he has occasional attacks of colic with or without gall-stones He takes salines and he is relieved for the time being. That man is jeopardizing his life every month he puts off operation. The continued, slow, insidious infection is affecting every muscle in his body, making them less elastic and

that important muscle, the heart, is affected very soon. Myocardial changes begin and go on. If one examines the urine of such a patient, he will find always some evidence of changes in the organ—casts, albumin, diminution of excretory function—a new intoxication. By and by arterio-sclerosis, interstitial nephritis, Bright's disease, engrafted upon the cholecystitis. The individual's life, in other words, is threatened by infection that has been going on for years, not severe enough to make him give up the fight, because the physician or surgeon has not recognized the necessity of surgical care."

Finally and most emphatically, the great need is that we shall all strive to realize the point of view of one another. The cure of the patient is righteously our only aim. Consultations are for this purpose; the diagnosis is to be made for this reason; all treatment must be directed to this end. The physician reaches out for that which will lastingly benefit his patients; the surgeon designates those patients who are to receive his attention and those who are to return for medical management. Thus is prepared a broad foundation upon which may come together all who are endeavoring to comfort and assist the seekers after health. There is surely no need for the terms "medical diagnosis" and "surgical diagnosis;" it is

simply "diagnosis." Many a time we are obliged to admit a failure to diagnosticate an ailment and we are forced to suspect a certain condition and act accordingly; in other instances it is not vouchsafed us even to have a suspicion. At all events we are to look upon disease as a comprehensive problem to be solved for the good of the sufferer. So shall we learn to lean upon one another for its solution. It were well in any given case to know if things outside our own bailiwick are responsible for the illness—whether it be the eyes, the throat, the stomach, the nervous system or some general infection. No man diagnoseth to himself. Fortunately we cannot all be specialists, but it behooves us all, specialists included, to be good doctors. Nowadays the general practitioner finds himself genuinely a specialist. He is the keystone of the medical arch, the mainstay of all the workers in the field. He is never out of a job, unless perchance preventive medicine overtakes him. Mortals will continue to be sick and call for aid. Innumerable chronic ailments are still to be worked out. There is plenty of service for those who would find it, and there is pathology enough to go around. We are all everlastingly concerned with one another's work; we are all our brothers' helpers.

The Importance of Accurate Diagnosis of Affections of the Eye

By Chas. W. Kollock, M. D., Charleston, S. C.

AN accurate diagnosis of any morbid condition is of undoubted importance whether it be an af-

fection of the eye or some other portion of the body. In this paper your attention will be called to a

number of symptoms which appear to be similar in different affections of the eye where serious conditions have been mistaken for those of a less serious nature and vice versa. It cannot be expected that those not versed in ophthalmology should recognize as readily as those who are the various affections of the eye, but it must be admitted that a certain amount of knowledge of the human body and its ills is absolutely essential for any one who offers his services for the treatment of disease. A general familiarity with the normal sounds of the heart, with the methods of auscultation and percussion, with the prominent symptoms of pneumonia, typhoid fever, strangulated hernia, appendicitis, the various exanthematous diseases, etc., is important and even necessary to every one who would practice medicine intelligently, be he specialist or not. To know in a general way the symptoms of disease enables one to decide whether a case should be referred to a specialist or others, if he does not care or feel qualified to treat it. In other words, an accurate diagnosis, or a definite knowledge that certain symptoms indicate serious trouble very often saves valuable time in treating what may be a vital condition when every moment counts. In affections of the eye the commonest error is to mistake iritis for conjunctivitis and it makes a vast difference whether iritis is treated as conjunctivitis, or whether conjunctivitis is treated as iritis. In the former most valuable time is lost for if the pupillary edges of the iris remain even for a short time in contact with the capsule of the lens adhesions form which may be permanent or can only be torn loose after prolonged and severe treatment. It may be thought by some that it re-

quires special study of the eye to enable one to make a differential diagnosis in such cases. Undoubtedly it requires careful observation and it is concluded that every graduate in medicine possesses a fundamental knowledge that is indispensable to a physician. The conjunctiva, like any mucous membrane when inflamed, becomes congested, swollen and discharges first a watery mucous which soon becomes muco-purulent and purulent, if the exciting cause is sufficiently virulent to keep up the inflammation. In no case, it may be said, is the discharge of a *purely watery nature*. This discharge causes the edges of the eye-lids to stick if they remain in contact for any length of time—hence in conjunctivitis the lids are invariably stuck together when the patient wakes after sleep. Beyond a feeling of soreness and discomfort about the eye there is no great pain in conjunctivitis except, perhaps, in purulent cases where the swelling about the eyes is often very great. Even in these the pain is usually confined to the lids. The vision in conjunctivitis is not affected unless the lids are closed by the swelling or the cornea becomes covered by the discharge, when a temporary dimness may exist. The cornea is clear and normal, the iris natural in color and the pupil reacts normally to light stimulus. Finally an examination of the discharge will show the presence of the exciting germs. In iritis the first symptoms are a feeling of discomfort about the eyes, a slight impairment of vision, both for far and near objects, which is due to turbidity of the aqueous humor and probably a certain inaction of the ciliary muscle. There is a dull boring pain in the eyeball which radi-

ates ever that side of the head, a tendency to close the lids, to exclude the light, and a flow of tears—not mucous. There is no sticking together of the eyelids but they are generally swollen and the conjunctiva is congested, while around the cornea there is a red zone which is due to intense congestion of the vessels *beneath* and *not in* the conjunctiva. The cornea often presents a steamy appearance that interferes with vision and changes the tints of the iris. The pupil is usually contracted and if it reacts to light at all does so in a sluggish way. The flow of tears increases as the case progresses until it may become constant and a source of great discomfort to the patient. Vision also fails with the advance of the inflammation and pain is a constant factor, but always more severe at night. The history of the case generally proves that the patient has had syphilis, rheumatism or gout and perhaps, in rare instances, other diseases, such as malaria, continued fevers, etc. In parallel columns are the more conspicuous differences.

Conjunctivitis.

1. Eyeball red, conjunctiva congested and especially towards the retrotarsal folds, except in purulent cases when both swelling and congestion is intense and a thick chemotic ridge may surround and overlap the edges of the cornea.

2. Discharge is at first watery, then mucous, mucopurulent, purulent and contains germs. Edges of the lids adhere and lashes are clogged with crusty discharge.

3. Cornea clear, iris normal in appearance, pupil reacts promptly to light and dilates evenly under the influence of mydriatic. Vision not usually affected.

4. Pain is not severe or worse at one time than another.

5. History of case generally shows exposure to similar case.

Iritis.

1. Eyeball red especially around the cornea. Conjunctiva congested but not much swollen.

2. Discharge consists of tears with perhaps epithelial cells but no cocci; lids do not adhere.

3. Cornea is generally hazy, iris is dull in appearance and color unnatural, congested loops of blood-vessels may be seen by close inspection and the pupil reacts sluggishly or not at all to light and dilates unevenly under the influence of a mydriatic. Vision is considerably affected.

4. Pain is generally severe and worse at night; it radiates over the same side of the head and down the side of the nose.

5. History of case generally shows syphilis, rheumatism or gout.

It is of the greatest importance that this differential diagnosis should not be forgotten and should be carefully and most thoroughly taught to students as it is not an uncommon occurrence to see eyes with seriously impaired vision which is the result of a mistaken diagnosis.

The next important error in diagnosis is the nonrecognition of the symptoms of glaucoma, or what is infinitely worse to mistake it for iritis and so treat it. It is not necessary to discuss here the many theories of glaucoma but it should be known that there is such a disease of the eye which, if not promptly and correctly treated, will eventually cause blindness and which if mistaken for iritis, or any similar affection, and so treated, rapidly results in loss of sight. In glaucoma, the ball becomes hard ei-

ther from a stoppage of the outflow of intraocular fluids, or an increase of the production over the outflow, or both. It is a well known fact that when the pupil is dilated and the iris becomes tucked into the filtration angle (the angle between the cornea and iris and ciliary body) that exosmosis is hindered and the tension of the ball increases. The increased strain or tension is felt most at the weakest intraocular point which is at the entrance of the optic nerve. If this pressure continues for any time or recurs at intervals, the nerve fibres not only atrophy but the head of the nerve becomes "cupped," as it is called, and this cupping is one of the valuable, though not positive signs, of intraocular pressure. By those who use the ophthalmoscope its significance should not be overlooked, but as there are many who are not familiar with the use of this instrument other unmistakable and suspicious symptoms should be noted. Let them first realize that glaucoma is a most fatal disease to the vision, that it more frequently occurs after the fortieth year and attacks women oftener than men—the period of the menopause appearing in some cases to be an exciting cause. Let it also be remembered that the indiscriminate use of atropine in affections of the eye can not be condoned by a lack of experience and the same will apply to the employment of any very poisonous drug without an exact knowledge of its physiological action, its dose and dangers. It dilates the pupil, pushes the iris into the filtration angle and impedes the outflow of fluids which is so necessary to preserve the normal ocular tension.

When, therefore, there exists a tendency to glaucoma atropine acts as fuel to the flame and many eyes have been lost by its use.

It is to be admitted that a case of acute glaucoma may at times have some resemblance to an acute case of iritis and the differential diagnosis may appear difficult, but a close examination should show in iritis a contracted and sluggish pupil, while in glaucoma it would be dilated and immovable. In iritis the tension is normal, or nearly so, while in glaucoma it is increased. The pain in both is often severe but in iritis particularly so at night, while in glaucoma there may be nausea and vomiting which are unusual in iritis. Iritis occurs at any age and is very common among young adults—especially men—whereas glaucoma is unusual before the fortieth year and occurs oftener in women than men—Glaucoma patients will often give an history of previous attacks of inflamed eyes accompanied by acute pain and dimness of vision which have passed off with little or no treatment and left the vision but little impaired. An untreated case of iritis is generally of long duration and leaves the vision invariably damaged and the eye sensitive to light and changes of temperature. In the parallel columns may be noted the essential points of difference between iritis and glaucoma.

Iritis.

1. Occurs at any age but is commonest in young adults, especially males.
2. Ball red, especially in periorbital zone.
3. Cornea generally hazy, aqueous humor hazy.
4. Pupil contracted, sluggish or immovable, dilates unevenly.
5. Tension normal or nearly so.
6. Pain in the eye and radiates over the same side of head and down the nose.
7. Vision impaired during at-

tack and if not treated remains so. When promptly and correctly treated vision may be normal even after repeated attacks.

Glaucoma.

1. May occur at any age but commonest after 40th year, especially in women.
2. Ball usually red all over in acute cases.
3. Cornea steamy.
4. Pupil dilated, immovable.
5. Tension increased.
6. Pain at times agonizing in the eye and head and at times accompanied by nausea and vomiting.
7. Vision may be lost during attack and again if of short duration may be normal after, even if not treated, but becomes more and more impaired after each attack.
8. History may show syphilis, rheumatism or gout but more probably previous attacks that have been accompanied by pain, dimness of vision, halos about lights, etc.

The dormant cases of glaucoma, or those eyes which are predisposed to the disease are more dangerous for to the casual observer, they appear normal or excite no suspicions. An ophthalmoscopic examination would often reveal a "cupped nerve" head out of which the retinal vessels appear to climb over abrupt edges. Pulsating arteries may be seen and an undoubted increase of tension would be noted, while the perimeter would show a narrowed nasal field of vision. These are tests for the expert therefore he who is not should be wary of the use of atropine in the eyes of persons over forty years of age, especially women. While mistakes in diagnosis of other ocular affections may cause suffering and inconvenience the results are not nearly so damaging as in those

that have been mentioned. Ophthalmia neonatorum, which claims the frightful toll of about 25 per cent of all the blind persons in the world, is always seen in the newborn child, but its terrible consequences are more probably due to a lack of appreciation of its gravity and awful results together with gross ignorance of the necessity of prompt, thorough and continued treatment until all danger is over.

It undoubtedly happens that errors of refraction are not diagnosed and their symptoms are mistaken for ailments of different portions of the body, but sooner or later they are recognized and corrected without any great damage having been caused by the delayed or mistaken diagnosis. However a word of caution should be spoken of the importance of careful diagnosis in the cases of children and especially those who at a very early age show symptoms of trouble—such as Squint.

Intraocular diseases are at times difficult to diagnose even with the aid of the ophthalmoscope and how helpless must one be who can not use this instrument. A gradual failure of vision occurs which the patient scarcely notices and which, as the physician sees no external trouble, he is apt to overlook until it is suddenly discovered by the patient that he is blind. An ophthalmoscopic examination may show an intraocular growth. A separated retina, and hemorrhage, a retino-choroiditis and other conditions that cause blindness and which prompt treatment might have cured or improved. In the eyes of young children malignant growths are sometimes seen and a prompt recognition is of the utmost importance for upon it and the early removal of the eye will depend whether the life is saved or not. As

long as the growths are confined within the ball the removal of the ball will generally save life, but when it passes through and affects the orbital tissues even the most radical operation (exenteration of the

entire orbital contents) can only delay the end.

Read by title before the South Carolina Medical Association, Rock Hill, S. C., April 17, 1913.

SOCIETY REPORTS

AIKEN.

TO ENTERTAIN MEDICOS.

Physicians of Saluda, Edgefield and Aiken Counties to have Big Meet Here Next Month.

The last meeting of the Aiken County Medical Association was at the office of Dr. H. J. Ray. There was quite a large attendance, and all members seemed to have enjoyed the meeting and to have had a pleasant time.

There was no regularly prepared papers, as it was determined to make this meeting a business meeting and to arrange for the meeting of the district society, consisting of the counties of Saluda, Edgefield and Aiken.

The time for this meeting is July 21st, and the local society will prepare a grand entertainment for the visitors from the other counties. The preparation of the dinner will be left in the hands of the ladies of the Hospital Association. It is hoped that the members of the Aiken County Society will turn out in full force, and make the occasion one well worth remembering.

A great many interesting papers will be read and members attending will obtain much benefit from the reading of these papers and a discussion of the same.

After the meeting a very enjoyable lunch was prepared for the society by its members.

T. G. CROFT,
Reporter.

SUMTER.

The Sumter County Medical Society met at the Imperial Hotel, Sumter, S. C., the first Thursday in June.

The meeting was a full one, one new member, Dr. Alex Dick.

Dr. S. C. Baker reported an abnormal case of appendicitis without the four cardinal symptoms, nausea being absent, temperature almost subsiding and the general feeling improved on return of appetite, while the mass increased in size. Operated and the appendix had sloughed off. The mass which extended into the pelvis was pus. Cited case to show the danger even though it seemed better.

Dr. Walter Cheyne read a paper on the new test to estimate the kidney function, showing its importance, as in obscure cases its accuracy of diagnosis and its simplicity.

Dr. Baker read a paper on bone grafting and fractures. Reported success with live bone grafts upon the Haversian system in the bone splinters, in this way showing it to be superior to ivory pegs and lane plates.

The meeting closed after supper.
W. S. BURGESS,
Reporter.

THE EIGHTH DISTRICT'S WAY.

Secretary Marsh's Letter.

EDGEFIELD, S. C., June 21, 1913.

MY DEAR DOCTOR:

The second annual meeting of the Eighth District Medical Association will be held in the City of Aiken, Monday, July 21st, just one month from today. I am giving you long notice of this meeting and I want you to please begin now to arrange your matters as far as possible so that nothing will hinder your being with us on this occasion. If you cannot prepare a paper for this meeting why come, and discuss those that will be read by the following gentlemen:

"Pellagra"—Dr. D. S. Keisler.

"Maternal Impressions a Fallacy"—Dr. R. M. Hammond.

"Ectopic Pregnancy"—Dr. M. Wyman.

"The Physician as a Citizen"—Dr. A. A. Walden.

"The True Physician"—Dr. W. L. Kneece.

"Syphilis"—Dr. A. R. Nicholson.

Drs. T. C. Stone, H. Wyman, and J. B. Edwards, subjects unannounced.

And besides these interesting papers by the above members, our very popular and efficient State Secretary-Treasurer and Organizer, Dr. E. A. Hines, will be present and talk to us of the good to be derived from a closer organization.

Doctor, we are going to expect you at this meeting and you must not disappoint us.

This is the meeting for the election of officers, and the time to pay your annual dues of 50 cents. It is therefore an important meeting.

Yours very truly,
R. A. MARSH, M. D.,
Secretary.

BOOK REVIEW

DISEASES OF THE EYE—Seventh Edition Thoroughly Revised. By George E. de-Schweinitz, M. D., Professor of Ophthalmology in the University of Pennsylvania. Seventh Edition, Thoroughly revised. Octavo of 979 pages, 360 text illustrations, and seven lithographic plates. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, \$5.00 net; Half Morocco, \$6.00 net.

This work has been a standard text-book for many years and has now reached the 7th edition. The whole subject has been thoroughly covered in so far as a book of nearly 1,000 pages can do. The illustrations are very good.

We heartily recommend the volume as having few superiors.

GONORRHEA IN WOMEN—Its Pathology, symptomatology, Diagnosis, and Treatment, together with a review of the rare varieties of the disease which occur in men, women and children. By Charles C. Norris, M. D., Instructor in Gynecology, at the University of Pennsylvania. Octavo of 521 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1913. Cloth \$6.00 net; Half Morocco \$7.50 net.

This is an exhaustive monograph of great merit. The subject has been considered from almost every standpoint and it is indeed timely and should be read by every doctor in the land. The whole subject is of such vast importance that we cannot know too much about it.

We are glad to note the conservative

tenor of the book and that operative surgery is advised as a last resort.

It is highly important then that the general practitioner read this monograph from cover to cover and follow its teachings.

The binding, illustrations, print and the bibliography are all decidedly attractive and commendable. There are over 500 pages in the book.

COLLECTED PAPERS BY THE STAFF OF ST. MARY'S HOSPITAL (Mayo Clinic) 1912.—Collected Papers by the Staff of St. Mary's Hospital (Mayo Clinic) for 1912. Octavo of 842 pages, 219 illustrations. Philadelphia and London: W. B. Saunders Company, 1913. Cloth \$5.50 net.

The foreword of this most valuable collection of papers from the Mayo Clinic is dated June, 1913, so there is no question about this compilation being up-to-date. There are twenty-three members of the Mayo staff contributing to this volume. The illustrations are unusually good. There is no higher authority in the world we believe.

The following subjects have been taken up with approximately half a hundred papers:

Alimentary Canal, Hernia, Urogenital Organs, Ductless Glands, Head, Thorax, Spinal Column, and Extremities, Technic, General Papers.

BLOOD PRESSURE, From the Clinical Standpoint.—By Francis Ashley Faught, M. D., of the Medico-Chirurgical College, Philadelphia. Octavo of 281 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1913. Price \$3.00 net.

This is probably one of the very best books on a most important subject. It is more than a simple manual and yet it is simple enough for any doctor to understand.

The various instruments are described and the clinical phases of their use given careful consideration. The blood-pressure instrument has long since passed the experimental test and is as much a necessity as the stethoscope, thermometer or microscope. The makeup of the book is most excellent.

THE SURGICAL CLINICS OF JOHN B. MURPHY, M. D., at Mercy Hospital, Chicago.—Volume II, Number 3 (June, 1913). Octavo of 185 pages, 62 illustrations. Philadelphia and London: W. B. Saunders Company, 1913. Published Bi-Monthly. Price per year, paper \$8.00; Cloth \$12.00.

The June number of Murphy's Clinics just off the press is highly instructive. We were particularly interested in the stenographic report of The Operation of Bone-grafting for the cure of Pott's Disease as Devised by Dr. Albee, of New York. Dr. Albee not only gives a clear description of his work but operates on a number of patients at St. Luke's Hospital, Chicago. Dr. Murphy takes part in the discussions of the same and no one is more competent to discuss bone surgery than Dr. John B. Murphy.

There are 17 other subjects touched upon and we look forward with much pleasure to the August number which will contain a complete discussion on Vaccine Therapy.

INTERNATIONAL CLINICS—A quarterly of illustrated Clinical Lectures and especially prepared original articles on Treatment, Medicine, Surgery, Neurology, Paediatrics, Obstetrics, Gynecology, Orthopaedics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene, and other topics of interest to students and practitioners; by leading members of the medical profession throughout the world; Edited by Henry W. Cattell, A. M., M. D., Philadelphia, U. S. A., with the collaboration of John A. Witherspoon, M. D., Nashville, Tenn.; Sir Wm. Osler, M. D., Oxford; A. McPhedran, M. D., Toronto; Frank Billings, M. D., Chicago; Chas. H. Mayo, M. D., Rochester; Thos. H. Rotch, M. D., Boston; John G. Clark, M. D., Philadelphia; James J. Walsh, M. D., New York; J. W. Ballantyne, M. D., Edinburgh; John Harold, M. D., London; Richard Kretz, M. D., Vienna; with regular correspondents in Montreal, London, Paris, Berlin, Vienna, Leipsic, Brussels, and Carlsbad. Volume II, Twenty-third Series, 1913. Philadelphia and London: J. B. Lippincott Company.

We have been very favorably impressed with the solidity of the plan pursued in these books. Generally speaking the writers have

given careful consideration to the subject in hand. The publishers likewise have presented an attractive volume and thus they are books well worth purchasing and retaining in the library for ready reference.

The first chapter of "Indications for the use of Antitoxins, Serum, and Vaccines," is decidedly of practical value inasmuch as our knowledge necessitates constant revision. The same might be said of Electro-therapeutics. The chapter on the latter subject is well written and the bibliography commendable.

We were interested in the chapter on Fractures which is a review of 299 cases at the University of Pennsylvania Hospital. The general practitioner or surgeon should lose no opportunity for a careful study of this subject.

Dr. H. A. Royster, of Raleigh, N. C., has described an interesting case of Tuberculosis of the Scapula.

THE PRACTICAL MEDICINE SERIES—

Comprising Ten Volumes on the Year's Progress in Medicine and Surgery. Under the general editorial charge of Gustavus P. Head, M. D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School; Chas. L. Mix, A. M., M. D., Professor of Physical Diagnosis in the Northwestern University Medical School. Volume 1, General Medicine, edited by Frank Billings, M. S., M. D., Head of the Medical Department and Dean of the Faculty of Rush Medical College, Chicago; and J. H. Salisbury, A. M., M. D., Professor of Medicine, Chicago Clinical School, Series 1913. Price of this volume \$1.50; Price of the Series of Ten Volumes \$10.00. Chicago: The Year Book Publishers, 180 North Dearborn Street.

In this volume the subject of Tuberculosis has had exhaustive consideration; even the Friedman episode has been discussed. 114 pages, about one-third of the book has been devoted to Tuberculosis and the subject brought up-to-date in an interesting manner.

Diseases of the Ductless Glands have been well considered.

Diseases of the heart make up an interesting chapter also.

THE PRACTICAL MEDICINE SERIES—

Comprising Ten Volumes on the Year's Progress in Medicine and Surgery,—Un-

der the General Editorial Charge of Gustavus P. Head, M. D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Chas. L. Mix, A. M., M. D., Professor Physical Diagnosis in the Northwestern University Medical School. Volume II, General Surgery, Edited by John B. Murphy, A. M., M. D., LL. D., Professor of Surgery in the Northwestern University, Attending Surgeon and Chief of Staff of Mercy Hospital, Wesley Hospital, St. Joseph's Hospital and Columbus Hospital, Consulting Surgeon to Cook County Hospital and Alexian Brothers' Hospital, Chicago, Ill. Series 1913, Chicago: The Year Book Publishers, 327 S. La Salle Street. Price of this volume \$2.00; Series of Ten Volumes \$10.00.

Under the general supervision of Dr. John B. Murphy this is a splendid Volume replete with many interesting contributions and illustrations.

Surgery of the bones and joints has been particularly well presented; the section of abdominal surgery is of great value to an investigator or practitioner; much has been written of late about blood vessel surgery and here the technique has been brought out very clearly.

THE NARCOTIC DRUG DISEASES AND

Allied Ailments, Pathology, Pathogenesis and Treatment, By Geo. E. Pettey, M. D., Memphis, Tenn., member Memphis and Shelby County Medical Society, Tennessee State Medical Association, American Medical Association, Tri-State Medical Association of Mississippi, Arkansas, and Tennessee. Also Mississippi Valley Medical Association, Southern Medical Association, and of the American Society for the Study of Alcohol and Narcotic Diseases. illustrated. Philadelphia: F. A. Davis Company, Publishers, 1913. Price \$5.00.

We are glad to welcome this book on the market for we believe that this particular field has not been overstocked with good books.

The author has here more than 500 pages. The valuable plan of presenting cases as they arise has been followed in a number of instances. The whole subject has been elucidated in a creditable manner and thus such books as this one should be oftener found on the doctor's table for we believe that greater knowledge of the subject would lead to the prevention of this terrible condition as well as successful treatment.

VACCINE AND SERUM THERAPY, Including also a Study of Infections, Theories of Immunity, Specific Diagnosis and Chemotherapy—By Edwin Henry Schorer, B. S., M. D., Dr. P. H., formerly Assistant Thomas Wilson Sanitarium for Children, Mt. Wilson, Md.; Assistant Rockefeller Institute for Medical Research, New York City, and at one time member of the Faculty of the University of Missouri, of the University of Kansas, and the Department of Preventive Medicine and Hygiene of Harvard University. Second Revised Edition; St. Louis: C. V. Mosby Company, 1913. Price \$3.00.

This monograph treats the subject under consideration extensively and thoroughly. No department of medicine has made more rapid progress in recent years than this.

The author has had a large experience especially at the Rockefeller Institute, New York City.

The chapter on diagnosis and treatment of the different infections is clever and practical as well.

LABORATORY METHODS, with Special Reference to the Needs of the General Practitioner, By B. R. G. Williams, M. D., Member of Illinois State Medical Society, American Medical Association, etc. E. G. Williams, M. D., formerly Pathologist of Northern Michigan Hospital for the Insane, Traverse City, Michigan. With an Introduction by Victor C. Vaughan, M. D., LL. D., Professor of Hygiene and Physiological Chemistry, and Dean of the Department of Medicine and Surgery, University of Michigan, Ann Arbor, Michigan. Second Edition. Illustrated with Forty-Three Engravings. St. Louis: C. V. Mosby Company, 1913. Price \$2.50.

We can but repeat the high opinion expressed in our review of the first copy of this work. Revision has been called for in a very short time. This is one of the very best books we have ever seen on this subject and we unhesitatingly recommend it for the general practitioner especially.

Minutes of the House of Delegates of the South Carolina Medical Association

Sixty-fifth Annual Meeting, Held at Rock Hill, April 15, 1913

Reported by Dr. C. P. Aimar, Chairman.

By the President—Dr. C. M. Reese, of Charleston:—The House will come to order. We will hear from the Committee on Credentials.

The President—The President would state that in the brief outline with reference to the Association in the past year I haven't anything special to report, and have visited but one of the County Societies, and in fact, but one district medical meeting held at Bamberg in January. We had there an excellent meeting, many good papers and some very good discussions.

There are some suggestions here which the President would make, which are embodied in the Annual Address to the So-

cietiy, but the recommendations which I make here will probably come before this body.

Recommendations.

- (1) That a member of this Association be elected and known as Organizer of the S. C. M. A., this officer to be especially selected with a view to his special fitness for this office. That his duties be clearly defined and to consist, first, of setting aside sufficient time each year to visit every county medical society in this State and at a specially called meeting of the county society to give an address, with the object of getting a thorough and complete county organization upon a broad plane, and to or-

ganize county medical societies where none are now in existence. That the Organizer be paid his traveling expenses and a reasonable compensation while he is actually engaged in organization work for the State Medical Association.

(2) In order to keep the Organizer in touch fraternally with the Medical Association of North Carolina, Georgia and Virginia, that he be appointed delegate to the annual meetings of each one of these States and that his actual expenses be paid, and that he be appointed and be made ex-officio one of the delegates to the House of Delegates of the American Medical Association, with his expenses paid.

(3) That the City of Columbia be selected as the permanent meeting place of this Association and that the Association bear its own expenses, to relieve the local members of the profession and the citizens of the burden of expense for entertainment.

These recommendations I make to the House of Delegates and it can use its pleasure as to the time when they will be taken up.

The next order of business is the Report of the Secretary and Treasurer.

Upon recommendation of Dr. Sweigert Dr. Marsh was received as a delegate from Edgefield County in place of Dr. Walker the regular delegate.

Report of the Secretary-Treasurer.

DR HINES:—The Association in the past year has, I think, progressed along many lines. In the first place our membership has gradually increased. We had, at the close of the fiscal year, 676 members—an increase of approximately 50 or 75 during the year of paid-up membership.

I think that one of the chief advances from a scientific point of view, has been the adoption on the part of many of the local societies of the regularly mapped-out program of work, to be done from three to six months of the year ahead, so that the obsolete method of conducting the society in regard to reading the papers, and the many excuses offered by the member that he did not know this or that, is entirely done away with. I feel that it would be wise to adopt this method throughout the entire State.

I am unable to understand just why, when there are 1275 licensed physicians in South Carolina, that we have only 676. I will say, in passing, that that is the average, probably throughout the United States. I believe it to be due to lack of concerted effort

in our several county societies to bring in these new members and to keep up this effort until we reach them. The trouble lies in the smaller counties—not in the larger ones. I feel that the greatest advance, possibly, of all, has been made from an economic standpoint, owing to the merging of the offices of Secretary and Treasurer and editor of the *Journal*. It was hoped by the House of Delegates that this would tend toward better business methods—simplicity and great improvement in the management of the affairs of the Association. I feel that this has been accomplished in a year's time. The *Journal* started without any funds at all, and a little later I will read you about its success from a financial standpoint.

The expenses of the Association generally have been greatly reduced. This direct method of dealing with affairs has allowed us to place the business on a modern business basis. We have been enabled to pay all bills cash or within 30 days, and here and now I desire to thank the executive officers of the Association, both county, district and State, for their hearty co-operation in this matter. I feel that no longer can the opprobrium be cast upon the Executive body of this Association that they are poor business men. I have not found it so. I have endeavored to reply to every letter within twenty-four hours after it reached my office. This I believe has been a good example and the members have met me half way. The merging of these offices has added greatly to the responsibility, and, incidentally, to the dignity of the office. I have been appealed to from many sources in the State and out of the State—over the United States, in fact,—to appear upon programs representing your body especially with reference to preventive medicine. So far as I have been able to do, I have responded heartily and gladly to these urgent requests. I take it that it has been recognized that the office now carries with it an authority which has gone beyond the borders of the State. I attended as Secretary, October 23rd, the conference of Secretaries of State Associations of the United States at Chicago, where for two days and nights we held a conference with the officers of the American Medical Association in reference to Society affairs. For the first time about forty of us were able to meet together, and to talk about nothing else but Associa-

tion affairs. This conference I feel to be of great importance, and in future it will redound to the interest of the Association. The expenses were all paid by the A. M. A.

The Journal has not been the brilliant success, from many standpoints, that possibly it might have been in other hands, but I have endeavored first to place it upon a sound financial basis. It requires money to run a thing of that sort,—and I have endeavored to secure it. I have in hand at the present time funds for all necessary needs in the near future. I hope, therefore, to place the Journal gradually on a better scientific basis.

The constant calls upon the office for addresses and lectures and so on of various kinds takes a great deal of time, and I have tried to refer these calls, in large measure to other committees who should really take on part of this work.

The report of the Treasurer I have here tabulated.

The report of the Journal I have here tabulated.

I shall be glad to read you a concise statement of our financial affairs, and, if you care to have it, every item that has been transacted.

TREASURER'S STATEMENT—1912.

REPORT NO. 2.

Balance of cash on hand January 1, 1912	\$ 1,110.76
Cash collected from January 1, 1912 to December 31, 1912, in- clusive (as per statement)	1,344.50
 Total	\$2,455.26
Cash expended from January 1, 1912 to December 31, 1912, in- clusive (as per statement)	2,135.74

Balance cash on hand January 1, 1913	\$ 319.52
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CASH RECEIVED.

1912.	
January 1. Balance cash on hand	
	\$ 1,110.76
January 12. Oconee County Medi- cal Society	3.00
January 29, Kershaw County Medical Society	20.00
February 17. Oconee County Medical Society	2.00

February 26. Barnwell County Medical Society	26.00
February 28. Oconee County Medical Society	1.00
March 5. Marlboro County Medi- cal Society	32.00
March 14. Lexington County Medical Society	24.00
March 20. Columbia County Medical Society	120.00
March 26. Orangeburg County Medical Society	34.00
March 26. Georgetown County Medical Society	18.00
March 27. Union County Medi- cal Society	34.00
March 28. Newberry County Medical Society	18.00
April 2. Dillon County Medical Society	12.00
April 3. Lee County Medical Society	16.00
April 3. Greenwood County Medi- cal Society	38.00
April 4. Florence County Medi- cal Society	28.00
April 4. Williamsburg County Medical Society	20.00
April 4. Dorchester County Medi- cal Society	44.00
April 4. Saluda County Medi- cal Society	22.00
April 5. Charleston Medical So- ciety (Chas. County)	124.00
April 6. Anderson County Medi- cal Society	88.00
April 8. Beaufort County Medi- cal Society	14.00
April 8. Colleton County Medical Society	16.00
April 8. Spartanburg County Medical Society	92.00
April 8. Lexington County Medi- cal Society	4.00
April 9. Orangeburg County Medical Society	2.00
April 10. Chesterfield County Medical Society	16.00
April 10. Lexington County Medical Society	2.00
April 12. Laurens County Medi- cal Society	40.00
April 12. Clarendon County Medi- cal Society	30.00
April 12. Spartanburg County Medical Society	2.00
April 13. Oconee County Medi- cal Society	31.00
April 13. York County Medical	

Society--	42.00	June 29. Sumter County Medi-	
April 15. Chester County Medi-	40.00	cal Society--	30.00
cal Society--		July 31. Spartanburg County	
April 15. Anderson County Medi-	4.00	Medical Society--	2.00
cal Society--		October 1. Spartanburg County	
April 15. Pickens County Medi-	32.00	Medical Society--	2.00
cal Society--		October 5. Barnwell County	
April 16. Bamberg County Medi-	10.00	Medical Society--	6.00
cal Society--		November 30. Pickens County	
April 16. Abbeville County Medi-	22.00	Medical Society--	2.00
cal Society--			
April 16. Greenville County Medi-		Total--	\$1,161.48
cal Society--	82.00	Amount of cash expended from	
April 16. Hampton County Medi-		May 1, 1912 to December 31,	
cal Society--	2.00	1912, by E. A. Hines, Treas--	841.96
April 16. To sale two buttons--	2.50		
		Bal. of cash in Bank, January 1,	
Total--	\$2,320.26	1913--	\$ 319.52
Amount of cash expended to		Amount of cash expended from	
May 1, 1912, by C. P. Aimar,		January 1, 1912 to December	
Treasurer--	1,293.78	31, 1912--	\$2,135.74
Cash turned over to E. A. Hines,			
Treasurer, May 1, 1912--	\$1,026.48	Total Cash collected from Jan-	
Cash received by E. A. Hines,		uary 1, 1912 to December 31,	
Treasurer from C. P. Aimar,		1912--	\$2,455.26
Treasurer, May 1, 1912--	\$ 1,026.48	January 8. Dr. J. W. Jersey for	
May 1. Florence County Medi-	2.00	stamps--	8.00
cal Society--		January 8. Peace Printing Co.	
May 1. Newberry County Medi-	2.00	for circulars--	1.75
cal Society--		January 20. Bank exchange for	
May 1. Lee County Medical So-	2.00	check--	.10
ciety--		January 29. Claim of Walker,	
May 1. Edgefield County Medi-	14.00	Evans & Cogswell Co. against	
cal Society--		Journal, Dr. Sosnowski, Editor.	
May 1. Deposited by mistake		(Ordered paid by Council.)--	750.00
in Treas' Book from Edgefield		February 26. Dr. E. A. Hines,	
County Medical Society--		for Sec's & Stenographer's	
May 1. Aiken County Medi-	7.00	salary and for stamps--	76.67
cal Society--		March 14. Dr. J. F. Williams	
May 10. Darlington County Medi-	28.00	for expenses as Councilor. (Call	
cal Society--		meeting of Councilors, Colum-	
May 10. Darlington County Medi-	2.00	bia, November, 1911.)--	12.60
cal Society--		March 16. Bank Exchange on	
May 17. Fairfield County--	20.00	check--	.10
ical Society--		March 20. Bank exchange on	
May 17. Fairfield County Medi-	2.00	check--	.20
cal Society--		March 26. Bank exchange on	
May 21. Newberry County Medi-	2.00	check--	.10
cal Society--		March 29. Bank exchange on	
May 24. Spartanburg County	2.00	check--	.10
Medical Society--		February 17. Bank exchange on	
May 25. Colleton County Medi-	4.00	check--	.10
cal Society--		February 29. Bank exchange on	
June 8. Newberry County Medi-	2.00	check--	.10
cal Society--		March 13. Bank exchange on	
June 21. Cherokee County Medi-	2.00	check--	.10
cal Society--		April 1. Bank exchange on	
		check--	.10

April 4. Bank exchange on check--	.20	pences \$27.30 - - - - -	107.30
April 8. Bank exchange on check--	.15	June 1. Dr. E. A. Hines. To salary as Sec.-Treas. \$29.17, salary for Stenographer \$8.34. Stamps \$5.00. Express on Treas.' Books 60cts. Salary as editor \$41.67 - - - - -	
April 10. Bank exchange on check--	.10		
April 15. Bank exchange on check--	.15		84.78
April 16. Dr. T. G. Croft, Councilor, traveling expenses, two years--	26.70	June 14. Dr. J. L. Dawson, one-half expenses to A. M. A. in Atlantic City, 1912--	30.00
April 16. Dr. E. A. Hines, salary of Sec. & Stenographer, and for stamps, programs, circular letters and envelopes--	103.74	July 3. Dr. E. A. Hines, one-half expenses to A. M. A. \$35.00 (Atlantic City, 1912). Salary Sec.-Treas. \$29.17. Salary Stenographer \$8.34. Stamps \$2.00. Express on President's reprints 90 cts. Salary as editor \$41.67	117.08
April 16. Dr. E. A. Hines, editor's salary--	166.67		
April 16. Dr. F. M. Dwight, expenses as Councilor--	11.45	Aug. 1. Dr. E. A. Hines, Salary as Sec.-Treas \$29.17. Salary for Stenographer \$8.34. Stamps \$2.00. Salary as editor \$41.67 - -	81.18
April 15. Bank exchange on check--	.20	Sept. 1. Dr. E. A. Hines, Salary as Sec.-Treas. \$29.17. Salary for Stenographer \$8.34. Stamps \$2.00. Salary as editor \$41.67--	81.18
April 19. Bank exchange on check--	.20	Oct. 2. Dr. E. A. Hines, Salary as Sec.-Treas. \$29.17. Salary for Stenographer \$8.34. Stamps \$2.00. Salary as editor \$41.67--	81.18
April 6. Bank exchange on check--	.10	Oct. 4. Dr. W. R. Barron, Sec. To Colonia Hotel expenses -- - -	8.75
April 9. Bank exchange on check--	.25	Nov. 4. Dr. E. A. Hines, Salary as Sec.-Treas. \$29.17. Salary for Stenographer \$8.34. Stamps \$2.00. Salary as editor \$41.67	81.18
April 20. Dr. C. P. Aimar, Treasurer's expenses, Columbia annual meeting, \$14.90. 10 per cent Treasurer's Commissions \$118.95--	133.85	Dec. 3. Dr. E. A. Hines, Salary as Sec.-Treas. \$29.17. Salary for Stenographer \$8.34. Stamps \$2.00. Salary as editor \$41.67	81.18
Total expenses from January 1, 1912, to May 1, 1912, by Dr. C. P. Aimar, Treas. Charleston, S. C.--	\$1,293.78		
(Cash Expended by Dr. E. A. Hines, Treas. from May 1, 1912 to December 31, 1912.)			
May 1. Dr. E. A. Hines, Sec's Expenses, Columbia annual meeting. Hotel bill \$17.75. Hack fare & Railroad fare \$9.00--	26.75	Total Expenses from May 1, 1912 to Dec. 31, 1912, by E. A. Hines, Treas. - - - - -	\$ 841.96
May 4. Dr. G. A. Neuffer, expenses as Councilor--	3.65	Expenses from Jan. 1, 1912 to May 1, 1912, by C. P. Aimar, Treas \$1293.78	
May 4. Dr. W. P. Timmerman, expenses as Councilor--	26.35		
May 4. Dr. J. T. Taylor, expenses as Councilor - - - - -	24.40	Total Expenses - - - - - \$2135.74 (The books have been duly audited.)	
May 5. Dr. E. A. Hines, editor. To correct error of Edgefield County -- - - - -	7.00	Respectfully submitted, E. A. HINES, Treasurer.	
June 1. Miss Ida Lamb, Charlotte, N. C., to reporting and transcribing the Columbia meeting at Columbia, April 16, 17, 18, 1912. Services \$80.00. Ex-		Statement of the Fund for the Prosecution of Illegal Practitioners.	
		Balance cash on hand to Dec. 31, 1912, - - - - -	\$161.52
		Interest on same from May 4, 1912 to Nov., 1912 - - - - -	4.84
		Balance cash in bank Jan. 1, 1913 \$166.36	

(The above duly audited.)

Respectfully submitted,
E. A. HINES,
Treasurer.

STATEMENT JOURNAL, 1912.

E. A. Hines, M. D., Editor.

Cash collected from January 1,	
1912, to December 31, 1912-----	\$2552.01

Cash expended from January 1,	
1912, to Dec. 31, 1912-----	1530.37

Balance cash on hand Jan. 1, 1913	\$1021.64
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Cash Received.

Cash from members-----	\$ 613.00
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Subscriptions from non-members	6.00
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Amount from Reprints-----	36.10
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Amount from Advertisers-----	1811.74
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Cash received from Dr. Sosnowski, former editor, to credit of Jour- nal -----	85.17
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Total	\$ 2552.01
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Cash Expended.

Balance paid R. L. Bryan Print- ing Co., due by Dr. Sosnowski, former editor, -----	\$ 223.09
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By other expenses -----	1307.28
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Total-----	\$ 1530.37
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(The books have been duly audited.)

Respectfully submitted,
E. A. HINES,
Editor Journal.

Upon motion of Dr. Burdell the reading of the detailed expense account of the Treasurer was dispensed with.

Report received as information and spread upon the minutes.

Report of the Committee on Public Policy and Legislation read.

Report received as information and referred to the Secretary and Treasurer for publication.

Report of Committee on Public Policy and Legislation.

*Mr. President and Members House of
Delegates:*

Your Committee on Public Policy and Legislation begs to report that no

legislation adverse to the interests of the profession and the general public, from the medical point of view, was enacted at the last session of the General Assembly, but on the contrary we feel that one of the most constructive pieces of legislation of recent years was enacted—viz.: the taking over of the Charleston Medical College—making it the Medical College of South Carolina. The wisdom of this step will hardly be questioned by any one interested in the cause of medical education, and we feel that the increased influence that this institution will exert upon the status of medical education in South Carolina will soon be felt and appreciated by every one.

The Medical Inspection Bill which was vetoed by the Governor last year, and which this Association recognizes, is of such vital importance to the public was again introduced in both the House and Senate and remains upon the calendar for consideration at the next session.

A bill entitled a bill "To Further the Study of the Cause of Pellagra," which bill provides for the creation of a board of pellagra investigators, was introduced by Mr. Welch of Richland County. This bill, which was reported favorably by the committee on Medical Affairs of the House, and which remains upon the calendar, is hereto appended for your consideration.

The bill known as the Optometry bill was again introduced and its claims urged as insistently as ever by the optometrists, but, thanks to the committee on Medical Affairs of the House the measure did not get beyond that body.

Respectfully submitted,
C. F. WILLIAMS *Chairman.*
ROB'T. WILSON, JR.,
W. J. BURDELL.

Report of the State Board of Health read. (Published in May *Journal*.)

Report received as information and referred to the Secretary and Treasurer for publication.

**Report of the Committee on Health
and Public Instruction.**

At the last meeting of the Association upon the recommendation of the president, Dr. J. W. Jersey, it was decided to appoint a committee on Health and Public Instruction. This determination was strictly in keeping with the most advanced thought and progress of the times. It was acknowledged by our profession that there were certain duties they owed the public, and more it was a notification to the public that as an organization of educated and specially trained citizens they would undertake to perform certain vitally important duties that only individuals of such technical training were competent to perform. This determination on the part of our profession was in our case a radical change of policy, but one that changed conditions made necessary and since this change of policy has been decided upon and the spirit of activity for gaining the best is so manifest, let us hope that we may have the will, the energy, and the wisdom to bring those blessings to our people that the profession in other places, having assumed the leadership have accomplished for their people. If the wonderful advances of civilization along all lines means anything and emphasizes one thing more than another it is the responsibility of the individual citizen. Whether this result means socialism as many think, or mere democracy as most think, we are not here to decide, but to accept facts as they are.

The social revolution which has been going on for several centuries marked at times by extreme bitterness and blood-shed, but for the most part by a gradual evolution of thought, waged on the one hand by conservatives who oppose change in any form that would deny special privileges to the few, and the radicals on the other hand who were the champions of a system that opposed special privileges to any, and whose fundamental doctrine was that all authority and power emanates from the masses without distinction of birth or financial condition, and having emanated from that source should be exercised by them and for them. This struggle is by no means sectional or local, but is in progress the world over. That the radicals are triumphant everywhere there can be no doubt, and, among the results distinctions of class in the body politic have disappeared. The theory of the victors is manifestly excellent and just, but just at this time will the system bring the best results? It is needless to question the wisdom of revolutions, because none of them move backward, and we are only concerned with the real facts that the meanest citizen possesses identically the same rights as the best citizens whether worthy or unworthy, and so the influence and effort of enlightened mankind is directed to the common purpose and object of fitting each person for their new responsibilities, and by this term is contemplated the prevention of disease, the relief of suffering, the reduction of mortality, the training and strengthening of the mind and body, and at the same time relieve those conditions that produce poverty and crime.

We believe, that while there are many fields in which the energies and

efforts of the Association might be profitably employed, the most urgent and at the same time the most important are the passage of such laws as will insure compulsory medical inspection of school children, and compulsory school attendance.

After having investigated the subject as thoroughly as possible from various reliable sources, among them The Russell Sage Foundation Committee, The Rockefeller Sanitary Commission, the departments of education of all the Southern states, and many of the Northern and Western states and various boards of health, and while we do not at this time desire to make a final report because, of certain information which is still out that the State Department at Washington is gathering for us, and although we have a fair knowledge of what those reports will contain, we desire that when this report is tabulated and published it may be so convincing that no thoughtful individual will question its statements or conclusions. We have abundant facts even at this time to justify us in asserting that compulsory education is impractical without compulsory medical inspection. We beg that you be not confused by the oft asserted statement that compulsory medical examination is advisable, because we are prepared to prove that it is not only hereby advisable but necessary in order to gain the results that compulsory school attendance laws seek. From reports received from Southern Boards of Health the percentage of defects sufficient to retard or seriously interfere with children's development, and progress in school work ranges from 65 per cent. to 75 per cent. of the total number of children in school and examined. The Northern authorities report from 50

per cent. to 65 per cent of the school children with defects.

The difference in these figures can be readily understood when we recall the effects of malaria, and hookworm disease which the South has, and the North has to only a very limited degree. It is interesting here to quote from the 1912 report of the Rockefeller Sanitary Commission in regard to South Carolina. in 1910, when the work commenced there were treated 665 cases of hookworm disease, in 1911 5,020, and in 1912 36,110. The great majority of these cases were among children. Massachusetts and several of the other Northern states have found that compulsory education without medical inspection was impractical, and nearly all the European countries as well as Chili and Argentina report the same experience, and have met the issue by adopting both. The findings of The Russell Sage Foundation is the same, and we might continue almost indefinitely to quote authorities if it were necessary.

That compulsory medical inspection and compulsory school attendance are absolutely necessary under modern conditions to emancipate the masses and prepare them for the responsibilities of enlightened citizenship to educate them to take advantage of the numerous opportunities that new conditions are creating and offering, that will insure increased compensation to those who from early childhood to old age have toiled and have only won the bare necessities of life, finally to die in poverty. But of even more importance to the State, the nation and civilization is our duty as it is now revealed to us, to the child He is dependent, and to him we naturally owe the most. He has not contracted habits that may, and probably

will determine his future. We may in a large measure determine it for him, and just in proportion to the care exercised by the medical profession and the educator, will the State suffer or prosper? If he is neglected by either, conditions will not improve, and if intelligent care is exercised in his behalf both he and society will be the beneficiaries. We wish that time permitted us to quote the many instances before us in illustration of the above conclusion, so we shall quote only two or three very strikingly illustrative instances.

During the Boer war in South Africa 75 per cent. of the British applicants for service were rejected because of physical defects. This was such an astounding and paralyzing condition that immediately an investigation was undertaken with the result that rigid medical inspection of school children laws were passed. This service has been constantly extended, and now with the same standards in force less than 20 per cent. of the applicants for military and naval service are rejected. But the blessings of this system have not been merely to increase the efficiency of Great Britain's fighting force, but the people are enjoying the greatest degree of liberty of any people in the world, and such opportunities have been opened to the masses that a few years previous would have been considered impossible.

Twenty-five years ago, or less, 90 per cent. of the cotton mill operatives of Massachusetts were American born people, of American born parents, and today less than 10 per cent. are. These people have not left their State, but have taken more remunerative occupations. They are in many instances large stockholders in various great corporations, and in many in-

stances actually owning them. Their savings deposits are the largest per capita in the country, and the people are the most intelligent and prosperous in the nation. Massachusetts has the most rigid medical inspection and compulsory attendance laws of any state in the Union.

Do you wonder with such an object lesson as Massachusetts, and several other of the Northern states, England, Germany, Argentina, and others present, that Louisiana with such a very high illiteracy rate should have recently adopted both of these systems? Do you wonder why the industrial and agricultural classes of Germany have made such tremendous advances? There these systems are rigidly enforced.

"Then what of South Carolina whose rank in the scale of illiteracy shocks the sensibilities and is a disgrace to civilization?

"What of that vast horde of toilers in her numerous industrial plants? Are they stockholders in these plants, and are they contributing an enlightening influence to her social and political life?

"Are they enjoying the best fruits of a splendid civilization, or are they suffering in ignorance of its existence?

"An occasional individual might prosper from the misfortune of ignorance and poverty of the masses, but not the State.

"And so your Committee have determined that the South Carolina Medical Association can make no more notable contribution to the State than by throwing her influence and strength towards the relief of such conditions, and so towards the accomplishment of this purpose we have directed our efforts.

"Last summer we sent out to all the

editors of newspapers in the State personal appeals for their support in relieving conditions. We also sent them the facts and arguments for the measures we believe would relieve. We received many assurances of support.

"We have made numerous addresses to lay audiences, and have found an enthusiastic response.

"We have undertaken to interest many religious and some civic organizations in these measures, and from all sources appealed to we have received encouragement..

"The matter is now squarely before the legislature having been presented with all the force of which we are capable.

"In conclusion we desire to submit the following recommendations for your consideration:

1. That this work be continued along this line until these measures become laws.

2. That as soon as complete information now in process of collection is received and compiled, that it be published in a special issue of the *Journal* devoted entirely to this subject, and that copies be sent to each member of the General Assembly, each physician in the Association, each newspaper in the State, the presiding officer of each of the more important religious organizations and to every other influential organization that may be decided upon.

3. That the Association tender to the Legislature the services of its members free of charge to conduct the examinations of school children, if the Legislature will pass the bill.

4. That in order to strengthen our own position we recommend that the Association give its support to the Medical College of South Carolina, not only as an Association, but

by the individual members of the Association in order to promote its efficiency in training the future members of our profession, and towards this end we would recommend that the Association appoint a committee of five with the president and secretary as ex-officio members to visit the College and study its needs, and assist the Board of Trustees to procure an appropriation sufficient to meet the needs in providing proper facilities.

5. Finally we urge each member of the Association to personally use his influence to promote the work the Association has undertaken. Feeling as we do, that whatever sacrifice one may make in its behalf, will be abundantly rewarded by the consciousness of duty well and unselfishly performed in a cause that is truly for the prevention of suffering, poverty, crime, and all the degradations incident to ignorance.

In conclusion I beg to offer a few suggestions, which, to my mind, appear at this time pertinent and justified. I trust the Association will take these suggestions under consideration: (1) That a member of this Association be elected and known as organizer of the S. C. M. A., this officer to be carefully selected with a view to his special fitness for this office. That his duties be clearly defined and to consist, first, of setting aside sufficient time each year to visit every county medical society in this State and at a specially called meeting of the county society to give an address with the object of getting a thorough and complete county organization upon a broad plane; and to organize county medical societies where none are now in existence. That the organizer be paid his traveling expenses and a reasonable compensation while he is ac-

tually engaged in organization work for the State Medical Association.

(2) In order to keep the organizer in touch fraternally with the Medical Associations of North Carolina, Georgia, and Virginia, that he be appointed a delegate to the annual meetings of each one of these states and that his actual expenses be paid, and that he be appointed and be made ex-officio one of the delegates to the House of Delegates of the A. M. A. with his expenses paid.

(3) That the City of Columbia be selected as the permanent meeting place of this Association and that the Association bear its own expenses to relieve the local members of the profession and citizens of the burden of expense for entertainment.

WM. WESTON,
E. A. HINES.

The President: This report is a valuable one and embodies some very important recommendations. What disposition?

Dr. Walker: I move that the report be received as information and published in the *Journal*.

Dr. Kibler: I move that some definite action be taken in regard to this report.

Motion seconded.

Dr. Simons: I would like to make an amendment to Dr. Kibler's motion —That this body proceed to discuss the report seriatim.

Amendment accepted by Dr. Kibler.

Dr. Simons: I would ask Dr. Weston to read us those several suggestions, so that they can be disposed of in regular order.

(Dr. Weston reads.)

"That this work be continued along this line until these measures become laws."

By the President: Those in favor of

Dr. Kibler's motion let it be known by saying "aye." Opposed "No." Motion carried.

Upon motion the various sections carried out seriatim.

(2) The Department of Education at Washington has taken this matter up and is collecting information for us all over this country, and having foreign consuls collect this work from the foreign fields, and we desire all that to be compiled and published in this issue of the *Journal*.

(Second recommendation.)

"That as soon as complete information now in process of collection is received and compiled, that it be published in a special issue of the *Journal* devoted entirely to this subject, and that copies be sent to each member of the General Assembly, each physician in the Association, each newspaper in the State, the presiding officer of each of the more important religious organizations and to every other influential organization that may be decided upon."

Recommendation adopted.

(Third recommendation.)

"That the Association tender to the Legislature the services of its members free of charge to conduct the examinations of school children, if the Legislature will pass the bill."

Dr. Weston: That is made for this reason: The Senate has passed this at the third reading without a dissenting vote. This system was adopted in England along this plan and at first there was no remuneration. It has finally grown until in 1912 their inspectors were being paid \$1800.00 per year.

Dr. Rob't Wilson: In connection with that recommendation I would like to make one suggestion: That we do not leave this matter entirely in the hands of the Committee, but that

every member of the Association constitute himself a committee to do legislative work upon his legislators and senators. The experience we have had in Columbia recently, in which we have achieved a very remarkable victory for the medical profession of this State shows what we can do by united effort, and I am satisfied if we will get behind this Committee that there will be no difficulty whatever. If we teach our senators and representatives what this measure really means, and add to the influence of the Committee with our senators and representatives, it is going through.

Third recommendation carried.

(Fourth Recommendation.)

"That in order to strengthen our own position we recommend that the Association give its support to the Medical College of South Carolina, not only as the Association, but by the individual members of the Association in order to promote its efficiency in training the future members of our profession, and towards this end we would recommend that the Association appoint a committee of five, with the president and secretary as ex-officio members to visit the College and study its needs, and assist the Board of Trustees to procure an appropriation sufficient to meet the needs in providing proper facilities."

Dr. Wilson: If I may say a word here, we believe it is extremely important that some special training should be carried along this line in order to become efficient in this work, and we are convinced that the Medical College as it now exists—a State institution—if these measures are adopted by the Legislature, they will make it their business to give those young men that are graduating from there special training along this line, and

will be of immense benefit to the State

I desire to express my gratification at the interest the committee has taken in regard to education and the recommendations that they have made. This is a State College now, and every professional man in the State ought to take a direct interest in the institution, and if you will stand behind us as you have done so far, we will make the College a credit to the State; a college that you will be proud of and proud to own as the College of South Carolina.

Applause.

Fourth recommendation adopted.

Fifth recommendation.

"Finally we urge each member of the Association to personally use his influence to promote the work the Association has undertaken. Feeling as we do, that whatever sacrifice one may make in its behalf, will be abundantly rewarded by the consciousness of duty well and unselfishly performed in a cause that is truly for the prevention of suffering, poverty, crime, and all the degradations incident to ignorance.

Fifth recommendation adopted.

(7th report—Report of the Committee on Study and Prevention of Tuberculosis.)

Dr. Williams: I had hoped to be able to report at this meeting that a Society for the prevention of this disease had been thoroughly organized in this State, but through a mis-carriage of the mail I did not secure from Dr. Hines a list of the various county representatives so that I could call a meeting here to organize. As soon as I got the names of the committee from the Secretary, I drafted by-laws and had hoped to have a permanent organization at this meeting, but am not able to make any report

whatever. If the Secretary will, some time during the meeting, announce to the men who may perhaps be here, I think we may be able to get together, and it is my desire to get together before this meeting closes and effect an organization, if possible.

That is my excuse for not having a report.

Report of State Board of Medical Examiners read.

The State Board of Medical Examiners submits the following report:

The term of office of Drs. Harry H. Wyman, H. L. Shaw, J. L. Napier and A. Earle Boozer expired with the April, 1912, meeting of the South Carolina Medical Association. The House of Delegates proceeded with the nomination of members to fill these vacancies on the Board, with the following result: Dr. Harry H. Wyman, Second Congressional District; Dr. H. L. Shaw, Fourth Congressional District; Dr. A. Earle Boozer, State at Large. Dr. J. L. Napier having refused renomination, Dr. A. Moultrie Brailsford was nominated for the Sixth Congressional District. Drs. Joseph Maybank and R. Andral Bratton having resigned, the following were nominated to fill out their unexpired terms: Dr. J. T. Taylor, First Congressional District, and Dr. W. W. Fennell, Fifth Congressional District. All nominations were then confirmed by the Association and the members appointed and commissioned by the Governor to serve their respective terms of office.

The new Board at its first meeting proceeded to organize by the election of the following officers: President, Dr. Harry H. Wyman; Secretary-Treasurer, Dr. A. Earle Boozer.

The Board met at the State House at 4 p. m., June 10, 1912, and registered applicants for license to practice medicine and for nurses' registration.

At 9 p. m. the Board met at the Hotel Jerome with the following members present: Drs. Harry H. Wyman, W. W. Fennell, J. J. Watson, H. L. Shaw, A. Moultrie Brailsford, J. T. Taylor and A. Earle Boozer. The annual election of officers was held, and the following were elected: President, Dr. Harry H. Wyman; Secretary-Treasurer, Dr. A. Earle Boozer.

The Board approved of reciprocity with

the following States: Maine, Maryland, West Virginia, and Wyoming.

The examination questions prepared by the members were considered and approved, and the following order of examination was adopted: Tuesday, 9-12, Dr. Wyman; 3-6, Dr. Shaw; 8-11, Dr. Watson; Wednesday, 9-12, Dr. Fennell; 3-6, Dr. Brailsford; 8-11, Dr. Taylor; Thursday, 9-12, Dr. Ellesor; 3-6, Dr. Boozer.

Applicants for Examination.

Doctors	128
Nurses	44
Total	172
Doctors.	
White, males (including 1 osteopath)	112
Colored, males	13
White, females (including 2 osteopaths)	2
Colored, females	1
Total	128
Nurses.	
White	43
Colored	1
Total	44
Grand total	172
The Board met at Isle of Palms, S. C., on July 30, 1912, to tabulate the grades made by the applicants, with the following results:	
Doctors.	
White, passed, 84; colored, passed, 7	
total	91
White, failed, 30; colored, failed, 7;	
Total	37
Total	128
Nurses.	
White, passed, 41; colored, passed, 0;	
Total	41
White, failed, 2; colored, failed, 1;	
Total	3
Total	44
Grand total	172

Of the 37 doctors reported failed three did not complete their examinations on account of sickness, etc., thus making the percentage of real failures 26½ per cent. against 28 per cent. the average of the other Boards in the United States. Of the 34 failures 18 have appeared before the Board once; eight, twice; three, three times; three, four times; one, five times, and one six times.

The Board has licensed through reciprocity two applicants from Virginia and one from Maryland, while four have been received into other states through reciprocity with this State. There have also been issued 17 temporary licenses and one duplicate license.

The Board offers the following recommendations:

1st. That the Medical practice Act be so changed as to permit two examinations annually; one on the second Tuesday in June and the other on the second Tuesday in November.

2nd. That sections and parts of sections providing for temporary licenses and the Junior Curriculum be stricken out.

3d. That the members of the Board shall receive for their services Five Dollars per day and five cents per mile as is now the basis of pay to the members of the General Assembly.

The term of office of the following members of the Board expire with this meeting: Drs. J. T. Taylor, P. G. Ellesor, W. W. Fennell and J. J. Watson.

A. EARLE BOOZER,
Secretary.

(NOTE.—Minutes to be concluded in the next issue of *The Journal*.)

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EDITORIAL

THE INTERNATIONAL CONGRESS ON
SCHOOL HYGIENE, BUFFALO,
N. Y., AUGUST 25 to 30th.

THE entire South and especially South Carolina should send a strong delegation to the International Congress on School Hygiene at Buffalo, the latter part of this month.

We in this section are making rapid strides not only materially, but scientifically. We are making history in the advancement of public health measures. South Carolina in recent years has been exceedingly active in reference to school hygiene and our efforts have attracted attention far beyond our borders.

No other congress ever held in this

country has approached in magnitude the one to be held at Buffalo.

The State Board of Health of South Carolina will be officially represented, but we should have a full representation from our city boards and many other allied organizations. In addition as many private citizens interested in this particular phase of public health work should be induced to attend.

MEDICAL MATTERS IN GEORGIA.

OUR neighboring State of Georgia has made wonderful progress in medical affairs within the past year or two. In medical education she is rapidly assuming an enviable position.

In the A. M. A. Journal, July 19th, appeared a remarkably complimentary article on the new Medical Department of the University of Georgia.

Within the last few weeks the merging of the College of Physicians and Surgeons and the Atlanta School of Medicine under the name Atlanta Medical College has been announced. This step will be of great interest to

many graduates of both schools in this State.

At this writing it appears that the Medical Practice Bill of the State Medical Association of Georgia, having many commendatory features, will become a law.

We congratulate our sister state on the wonderful strides she is making in her medical interests.

ORIGINAL ARTICLES

*THE CONSERVATION OF NERVE AND MENTAL HEALTH.

J. Allison Hodges, M. D., Richmond, Va.

IN plain and unvarnished language, Charles Wagner has told the story of "The Simple Life." In order to enforce its wholesome lessons his introductory chapter portrays not "the simple life," but, by contrast, a home scene familiar to all, with a bride-to-be in the midst of the difficulties and complexities of an approaching house wedding on the morrow.

The scene described in that classic masterpiece, its bustle and confusion, its work and worry, its hopes and disappointments, its nerve tension and distracted brain, is but a reflected picture in miniature of the life that we all lead today; a life far and away from "the simple life," but owing to the obligations and exactations of the times, it is the life that we must lead or be vanquished in the race for place and preferment.

Nowadays nothing is stable, nothing is steadfast, nothing is satisfy-

ing. The idol of yesterday is the memory of today, and the hope of tomorrow is the illusion of a phantasy. If, then, this be true, is it not becoming; indeed, is it not necessary that we should doubly protect ourselves against the oncoming and ever-increasing demands of that future that will surely tax our vital and mental energies to the utmost limit of endurance? For these reasons I invite your consideration to my theme: "The Conservation of Nerve and Mental Health."

A proper conception of the necessity for attaining and preserving a better balanced nerve force and a higher mental development is denied most of us, because of our unfortunate ignorance regarding the true nature of the human mind.

Just as in ancient days, so also at the present, the average student following Plato's theory, either compares the mind and brain to a player with his musical instrument, or believing as Lucretius did, regards it as a musical box wound up for just so many years to play just so many tunes.

Either theory is as disappointing as it is erroneous, for the acceptance

*Address before the South Carolina Medical Association, Rock Hill, S. C., April 16, 1913.

of either limits, in its fatalistic tendencies, the possibilities of mental development, for the human mind with its associated higher nerve centers is as capable of improvement as is the human body, and in this day of inspiring privilege it should be our task as well as our pleasure to see to it that the hygiene of the mind is as important and as much studied as the hygiene of the body.

Likewise, in this age of unrest, of striving after the unknown and the unseen; in this era of everchanging conditions, new forces in the material, moral and scientific world have been set to work and to stem the tide counterforces of mind and body and soul must be evoked or man, time's noblest development, because of his mental frailty of purpose and will, must yield his dominion over all and lose forever his priceless heritage gained through all the struggles that have come and gone.

Never was the game of life so entrancing, never was the pride of ambition so enthralling, never was the path of victory so magnificent nor so fulfilling as the present, if we had but the nerve force and mental efficiency to endure the test and prove withal the victors.

Have we, though, that nerve and mental stamina that can withstand the demands of this day, and win the trophies of mind that will make us the victors of our unsurpassed opportunities? This the future alone must determine, and it behooves us as medical men, having in mind and at heart the best interests of our race and profession to see to it that in the midst of these abounding and ceaseless activities our children and our children's children are made strong in nerve and mind as well as in body, to meet the rapidly increasing duties that all but overwhelm

and envelop us and our institutions.

Great duties, as well as grave perils, demand full preparation and vigorous action, and surely no period of our history in the past, with all of its perplexing problems, has ever called for men and women more highly endowed or more mentally efficient for the battle that is to be waged than does the present, with its surging activities and boundless possibilities.

Prevention is the watchword of the modern world, and in order to preserve physical efficiency and prevent physical disease, and in a measure meet the exactions of the times, hygiene of the body has been studied and practiced to an extent, in recent years, that has been most commendable if not entirely warranted.

But this is not enough; it is not sufficient that one can do a day's work with vigor, and eat three meals a day with zest. The ox in the field can match such health—"the man with the hoe" can meet such conditions. Human health, mental health, goes beyond and above that; human beings have brains, and even the most robust physical health is not worth the having unless mental health—health of brain—goes with it, *pari passu*.

The general public has in recent times learned right well the problems of personal hygiene and physical exercise, also the proper physical care of infants and children, and this lesson now learned, it is necessary that the problems of mental hygiene be understood and applied.

To this subject most people have never given a thought, and yet it is of paramount importance to us all—this question of conserving nerve and mental health and consequent well developed efficiency;

your mental health and mine, and the mental health of our children.

To many it may come with the force of a new discovery that brains are not automatic machines or that human beings really have brains, but such is the fact, even if we appear oblivious to it, and consequently our mental as well as our physical health must be preserved and protected, so that we will think better, feel better and act better than we now do.

The preservation and improvement of our muscular structures, as important as it is, is not our whole duty. The modern trend seems to have gone far afield in this direction, for nowadays it is a fad to develop to the utmost every known form of muscular exercise. While this is healthful and, in a measure, invigorating to the entire system, yet it is not absolutely essential, except to the professional athlete. Indeed, it is more often indulged in to an excess that, instead of giving the hoped for tonicity, produces an exhaustion which is harmful and enervating. Our muscles may be weak, and yet we can supplement this defect by the employment of another's strength.

Is this true, however, of a weak brain? If our brain is not so developed as to work with maximum efficiency, can we remedy the defect by employing someone to perform the work we cannot do? Surely not, for weak brains put their possessors in the class of the hired, and the compensation is correspondingly small.

The matter of the difference between the constructive man of affairs and the hireling is but the difference of a few ounces of brain substance, but this difference is the potential that moves and nerves the world, and is never a drug in the open market.

Contrast, if you please, the numbers today who, in an earnest effort

after health are religiously, if not scientifically, seeking by every method of physical exercise, such as golfing, tennis playing, gymnasium work, home exercises and the like, to develop and train their muscular systems, with that amazingly small number who are giving one single definite thought to the specific development of their brain power, and it is truly and surpassingly amazing! It is, of course, eminently true that health of muscle is helpful to the proper development of the brain, but it is equally true that physical health can do no more than provide the vehicle for the medicine or, to change the metaphor, prepare the soil for mental action.

A Sandow, perfect in personal beauty and faultless in physical perfection, may yet be a child in knowledge and an infant in brain development. Have you not seen such cases? And do you not turn away in aversion, if not disgust, at such a spectacle, be it man or woman?

Physical hygiene is but one factor in a perfect development, and to be effective must presuppose a mental hygiene, which is not only based upon physical training but includes also the training of the essential organs of observation, thinking and acting. A perfect physical form is rare, but a perfect mental form is even rarer. Physical prowess no longer conquers the conditions existent today; that age has passed, and a new era has dawned, calling more strongly and more urgently than ever before for stalwart men of brains. Today men are sought to fill the high places of power and position, not because of their brawn and muscle, but because of their capacities of brain and of mind; and neither are the golf score nor the size of the biceps the criterions of greatness or

of usefulness, for many men of inferior physical development who could have earned but a scant livelihood by their physical powers, have yet been able, by the forces and activities of their brain to transform the intellectual viewpoint of Christendom. The perfect man, the great man, is he who can not only meet occasions, but make them.

Mental hygiene, then, not only includes physical hygiene but embraces much more, of which if in the past we have been oblivious, is not so much a sin of omission as of commission. Most of us have for ourselves and for our children a standard of physical health, a standard of moral living and a standard of educational efficiency, but have we a standard of nerve and mental health that is personal and absolute?

For instance, how many of us have ever taken an inventory of our mental health, or our mental capacities, or that of our children? We accept the fact that we are endowed mentally by a beneficent Creator, but we seldom "take stock" of this best and highest gift that is our common heritage. We are careful at stated times to study and appraise the physical, moral and educational qualifications and development of ourselves and of our children, but we do not apply the tests which would inform us as to the proper status of our or their mental health. We do not stop in the onrush of life to even inquire if our mental efficiency is at par, or generally give a definite thought to the specific development of brain power. We may have noticed in an indefinite way that our memories are not as precise and retentive as they were formerly, that our capacity for concentration is not so marked and effective, that our initiative is weak, that our will power is vacillating,

that our judgment is impaired, that our habits of thought are not logical, that our brains fag quickly and easily, that trifles become mountains of doubt and indecision, that worry begets emotionalism and finally disgust and despondency, and yet we have taken but scant notice of all these deteriorating conditions, which are but evidences, if we would but know and admit it, of the fact that our brains are slothful and are not the well ordered and well disciplined machines that they might be if properly conserved and carefully trained.

And why is this true? Simply because we have not understood, nor properly appreciated the fact that it is as important for us to train and develop our brains as our bodies, and further, because most of us have accepted our mental endowment as God's first and best gift, and have been supinely satisfied to add nothing to the equipment of His handiwork, even if we have been lavish in the expenditure of the substance of His beneficence.

In truth and in fact, many of us have never realized that mental hygiene and mind training are far more important than physical hygiene and body training, and that in the last analysis personal efficiency is really and truly mental proficiency, the foundation of all efficiency. If it is scientifically true that every mental action has a physical substratum in the brain, then it is equally true that every perverted mental action is evidence of a perversion, however intangible, of the brain substance. Necessarily, then, the physical welfare of the brain is intimately and directly concerned in all questions of mental hygiene, and anything that affects the myriad specialized cells of thought must resultantly influence, favorably or unfavorably, the activ-

ity and healthy functionation of the mental organs, the basis of all power.

Conspicuously affecting the brain in a deteriorating and destructive way are three important conditions, viz.: vicious habits, injurious thought germs, and certain diseases. In speaking of the first, vicious habits, it is only necessary briefly to affirm what is familiar to you all, that habits may be either physical or mental; if physical, they may be a misfortune simply, but if mental they may be and are apt to be, indeed, a calamity, both physically and mentally.

As regards the second, injurious thought germs, it is only necessary to recall to your minds this era of germophobia in which we live, to emphasize the importance and benefits of the application of the germ theory to the present attainments and advancements in both medicine and surgery; but it may not be so obvious to you, if you have not considered this subject, why, if today we believe so firmly and so justly in that wise hygienic maxim, "clean out and clean up"—the best preventive germ theory ever enunciated—that we have not advanced one most important step farther and demanded that if this dictum be applied to our bodies it should also logically and hygienically be applied to our minds as well, if we would conserve perfect health. If the body can be destroyed by various disease germs, why can not the mind be polluted by injurious thought germs? If cleanliness is the preventive of the one, why not of the other? Evil thoughts, malicious intentions, perverted actions, abuse and misuse of intellectual activities can only be "swatted" out by good thoughts, instructive reading, informative culture and proper ambitions. We do

not know, not one of us, the mighty force and magnificent power and possibilities that lie dormant in a healthy mind, for we seldom have it free from injurious and destructive thought germs.

As for the third general condition, various degenerative diseases which affect unfavorably the healthy action of the higher mental centers, those disease conditions such as the toxins of alcohol and syphilis, and the long and destructive chain of symptoms arising from cardio-vascular-renal diseases, are too well known by such a medical audience as this for me to dwell upon. It is but sufficient that I name them to suggest to your minds a series of disease expressions, with whose realities and dire consequences to both mind and body you are no stranger but ever a sincere sympathizer, for no man living knows nor fears nor appreciates, as does the family physician, the possibility of seeing in those he loves a clinical picture of these fatal and deplorable mental maladies.

Look, for instance, at the destructive effects of alcohol and syphilis alone on our citizenship: Two hundred thousand individuals are today confined in institutions for the insane in the United States, at a cost of not less than \$164,000,000—a sum greater than the value of our annual export of agricultural products, and this company of insane dependents is ever increasing. Fifty to seventy-five thousand of this number owe their condition, wholly or in part, to alcohol, and the proportion of cases in which specific disease ultimately has led to the same result is appallingly large. Probably the most accurate data regarding the proportion of the terminal form of the latter disease resulting in insanity,

is obtainable from the statistics of the Austrian army, where the records covering a long term of years, and aggregating 41,000 cases, show that one in twenty are finally afflicted with general paralysis, or paresis, colloquially known as softening of the brain.

It must be remembered that these cases had been subjected to treatment or ordinarily the rate would have been proportionately higher, as, of course, it must be and is, in civil life. Owing, also, to the high pressure life of today, rapidly increasing disease due to heart and kidney complications in adults above forty-five years of age, is succinctly and forcibly illustrated in the recent report of a life insurance president, who says that during last year forty per cent. of the mortality in his company was due to this class of disease. This is but in line with other statistics and forcibly and pertinently proves the fatal and increasing tendencies of the age which have to pay the penalty of the price of fast and furious living.

It is likewise true that, although the longevity of the race has increased within recent years, it has been, nevertheless, at the expense of adults past forty, and only because of the decrease in infant mortality during this time.

It is not within the province of this discussion to detail the treatment of those conditions which affect nerve and mental health, but it is certainly entirely obvious that if a course of treatment can be instituted to make the body efficient, one can likewise be devised for the mind, for the body is servant to the mind, as the mind may be, and should be, to the soul. Physical efficiency we now know is not mental efficiency, and our object tonight

has been rather to suggest that even while the average mind is a vastly more complicated affair than the average body, yet it is even more susceptible to culture and conservation. In these days, if we are to believe the journals, the American nation is rapidly approaching a state of physical efficiency of which the world has probably not seen the like since the days of historic Sparta, but I repeat, physical efficiency is not mental efficiency. This gigantic debauch of the muscles, which of late has crazed our country, must be arrested, and the mind must have its due share of attention and must be trained and the mental health of our citizenship be thus conserved.

Considering that mind governs everything in our world, that force has been singularly neglected and misunderstood. Even when tribute has been paid to its power, as I have said before, it has been regarded generally as a perfect gift from a most beneficent Creator, an intangible entity, as it were, unalterable and complete, a tool, ~~mayhap~~, that could only be used if one happened luckily to be born with the genius to do so.

In the past, education in most schools has simply meant, in the main, that the faculties of memory and representation were developed, the one being often forced to the limit, and the other wrongly cultivated at the expense of the other faculties of the mind. This is not a real education, but simply "cramming" and "curling," to use college vernacular, and does not, except in a moderate sense, adequately develop the powers of thought or of self-control or of self-development. This, in fact, is not true education; it is only a fashionable faddism, catering to the whims and demands of a boastful and unlearned constituency.

The control of thought and its use to modify character already formed, to change even external surroundings, or at least their effect on self-development and thus bring about health, happiness and success, is the purpose of all well rounded and fully developed schemes of perfect education, and is the chief end sought in the conservation of nerve and mental health, nerve equipoise and mental efficiency.

The possibilities of thought training are infinite and its consequences eternal, and yet few realize that self-control and consequent self-development in mind and body is only mental control, pure and simple.

To acquire this direction of mind action is no intricate nor obscure affair. It requires neither hard study, much leisure nor book learning to accomplish. Every person will have a different task and different problems to solve, but like the sculptor, chisel in hand, with eyes steadfast and purpose strong, he must make every stroke count towards the final model of that ideal of loveliness fixed firmly in his mind and thus, with every thought a blow, forge out of his own life forces beauty, harmony, happiness, and success. Nothing must be left to chance in this self-development by thought control, for the hands of a bungler may mar the loveliest statue or wreck the brightest life. To accomplish this practically our whole educational system must be revolutionized and we must no longer be bound "hand, foot and dragoon" to system soaked schedules of the past in which personality is abased, if not wholly lost, and all alike are made to bow to the time honored and traditional scholarship schemes of high standards with "high averages."

This old mediaeval idea is out of

harmony with the practices of this twentieth century America, and I suspect there are few who would stand sponsor for this system which grips us and entralls our children today and which, while all of us have conformed to, no publicist has ever been bold enough to defend.

Schools must no longer be regarded as only for the intellectually elect, where all knowledge is sorted into so called courses and where each child is at the mercy of a score of these knowledge specialists for a certain term of years, at the expiration of which service, if he or she has lasted, is at last graduated and tagged "Educated."

The children, and not certain prescribed courses, should be our most important consideration, and we should prefer maid to method, child to course, daughter to dogma, or in other words, the child first, the system last.

In short, then, if we would have healthful children, strong and virile in nerve and brain force, we must tear down our old methods of scholastic scholarship, which in school years often impose upon the child the strain of mature years, and often at twenty years of age commits a civic crime by turning youth into premature decay. To make healthy and successful men and women, I repeat that high averages in formal scholarship should be subordinated to the development of the capacity for happiness and interest in real life. If this were done, we physicians would have a far smaller number of neuropaths with whom to contend, and chorea, dementia precox, and a host of other nervous ills would appreciably diminish.

We owe no higher duty to ourselves and those about us than this, and if we but live up to our obliga-

tions reason will be enthroned in the citadel of every brain and will, with her obedient handmaidens of pure thoughts and strong wills, establish in every man a kingdom of right thinking, right acting, and right living.

To be specific, the conservation of nerve and mental health is an individual task and a personal duty, and in addition to what I have suggested as the individual's share in this work it should also be the physician's privilege, as I am sure it will be his pleasure, to aid every patient to accomplish this laudable end. In my opinion this can be best effected by having patients look to their physicians in a new light, namely, as medical appraisers, or preventive officers, and at certain climacteric or critical periods of life, say from three to five, from thirteen to fifteen, and from forty to forty-five years of age, allow them to take an inventory, as it were, of themselves, of their predispositions to disease, and their present standard of health, as well as of their psychic and nerve states, so as to improve, protect and conserve their physical and mental activities. By this means and our present day methods of exactness and precision in diagnosis and prognosis, the tendencies to a nervous collapse could be foreseen in time and properly estimated, and the tendencies to a physical deterioration, with resultant mental disorders, could be considered, and if any of these should be threatening or imminent preventive or curative measures could be instituted.

I am aware that this method may appear didactic and idealistic, but it is possible, and it is feasible and it is coming. In many of the schools,

already, medical inspectors have assumed and performed the duties that careless and unthinking guardians and parents have shirked and would not undertake, and the beneficial results have even now been more than could have been naturally expected.

As an additional aid in the conservation of mental health, sexual hygiene should be taught by parents to their children, and the marriage laws of today should be changed and regulated, for, without attempting to discuss or advocate any ideal method which at the present time might, indeed, appear Utopian, it is sufficient to affirm, all other conditions disregarded, that neurotic parents are most deplorable educators, and this today is one of the most potent factors favoring a possible decadence of the race. We need sane men in these days of hysteria and faddism. Physicians, the men behind the guns, also need education, enlightenment and encouragement to enforce these requirements.

In this as in many other conditions which influence nerve and mental health, want of knowledge on the part of the patient is the real and everpresent need, and it is for this reason that I would appeal to every faithful and high-minded physician, who prizes service above savings, and love of his fellow man above love of the almighty dollar, to assume now the office of teacher and trainer, as well as of physician and priest, and charge for these preventive measures as well as for his curative methods, for out of the wealth of the abundance of his knowledge and experience and skill, he can, by illustrating and practicing in his daily life the old maxim, *Mens sana in corpore sano*, save and strengthen

for God's glory and service some one of His feeble and nerve wrecked weaklings, and thus by conserving another's mental health add his ministering mite to the sum total of human health and happiness.

*PERSONAL HYGIENE.

F. A. Coward, M. D., Columbia, S. C.

THE subject of personal hygiene may conveniently be considered from two points of view, these viewpoints depending on the object sought to be attained. On the one hand the individual strives, through obedience to Hygeia's laws, to protect himself from acquiring or sharing the burden of disease borne by his associates, as a penalty for their violation of the hygienic code. On the other hand he seeks, through an interpretation of the Golden Rule made plain through modern studies of preventive medicine, to so conduct himself, in sickness and in health, that no disease stricken mortal may point to him in agony and say, "You in your carelessness, are the direct cause of my pain, my losses and possibly my death."

To a body of physicians it is not necessary to do more than to briefly review those precautions now recognized as wise and efficacious in maintaining bodily health.

Infectious material can only enter the body by certain avenues, viz: First, through the skin either without gross lesions, or by inoculation, the latter term including infection of wounds. Second, by ingestion in food or drink into the alimentary

apparatus. Third, by inspiration into the respiratory system.

Therefore, broadly speaking, the problem in the healthy, is simply a question of maintaining these organs in as near normal a condition as possible.

Many of the customs and manners of the civilized people, while ostensibly due to an innate sense of cleanliness and decency, really originated from the experience of our progenitors, who found that such practices promoted comfort and well being.

Thus, bathing removes infectious material from the skin, where if allowed to remain, it might readily poison any accidental wound or abrasion. Accumulations of organic matter, which serve as culture media for irritating organisms, are also removed.

I speak, of course, of the shower bath—he would indeed be an enthusiast who would claim for the common family tub, or the pools of our gymnasiums any sanitary virtues. Dentists and physicians tell us that the ills arising from unbrushed teeth are more numerous than the teeth themselves.

The use of nasal and pharyngeal sprays should be as general and regular as any other part of the toilet, but is seldom practiced. When traveling by rail or automobile, a preliminary application of petrolatum to the nostrils will serve to catch all dust, and may be removed at the end of the journey—with resultant freedom from dry throat, headache, coryza or even more serious infections. Untold suffering is due to neglect of the feet. Lack of cleanliness, neglect of a beginning ingrowing nail and ill-fitting shoes are of frequent observance. Even physicians often fail to recognize the symptoms of a weakening arch, and treat such cases

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for rheumatism or neuritis. Perhaps no part of the integument suffers more abuse than the scalp. Many Americans wet the hair daily, barbers scrub the scalp with harsh brushes in giving a so-called shampoo, and then express surprise at the resulting crop of dandruff and eczema. No human being should wet the hair or shampoo the scalp oftener than once in ten days, and women should make the intervals much longer.

One more rap at our friend the barber and the outrageous procedure known as face massage. Having deftly removed the beard and the surface layers of integument with a razor, he relaxes and opens the pores by several applications of a hot wet towel.

Now, fresh from his last visit to the toilet room, he kneads into the helpless sweat ducts and hair follicles a mixture composed of abattoir by-products, synthetic perfume, and a generous mixture of soap remnants, epithelial debris from his own and the patient's skin, and finally wiping off the excess (dark brown color by this time) he caps the climax by accepting money for the job. No, this is not the climax. The climax is the fact that the victim demanded it!

Boards of Health having succeeded in many states in abolishing public drinking cups, the American citizen arises and demands his right to his daily ration of filth. A word here on the common drinking cup—if you must use it, place the rim below and outside the lower lip, instead of within the mouth. In this way there is no taking of the cup into the mouth, and the amount of filth is so reduced as to be practically tasteless.

With these merely sketchy suggestions, I turn to the broader side of my subject—the duty of the individual

to those about him, he be sick or well. Here we run foul again of the great American palladium, "personal liberty"—yes personal liberty to have a yellow dog live in the public highways or in the neighbor's yard without hindrance—personal liberty to keep a cow with her unobjectionable end in one's yard, and the other end hanging over into the next man's yard. Personal liberty to smoke, chew, spit, urinate, or defacate wherever and whenever we please. Hurrah for Liberty!

The public toilets of this section of the country are more disgraceful than any I have ever seen except in South America—many men who are of model habit when in their homes are more indecent than the dog or the cat when only the public is to be considered.

Hotel men say that it is absolutely impossible to maintain public rooms in a decent condition. I have in mind tuberculous men of education who knowingly frequent public eating and drinking places without taking the slightest precaution to protect the public.

The same individual who yells for a shot-gun quarantine when his neighbor has smallpox, will yell for the shot-gun alone when the physician refuses to pronounce him free of danger to the public. Can we not in some way begin now, in our children, if not in our adults, to inculcate that fair, broad sense of duty to the community, to the stranger without our gates, as well to the one within?

Personal hygiene in this country must evidently depend on education and sentiment. We of today can at least arouse the sentiment—education is slow moving, and of the future

Above all let us beware of legislation for personal hygiene. Laws are difficult enough in the large prob-

lems of sanitation, they have little place in the more intimate and sacred relation of man to man.

The personal rules of hygiene being sentimental and largely altruistic, are in their conception, and more so in their practice, worthy of highest praise. Whatever of praise there may come, let us hope and trust that our profession shall be due the major part, as the just reward of precept and practice. Let no man of you who values his title of *Doctor* (*Teacher*) relax for a moment in his daily life before the temptation to do as others less taught, rather let us be consistent and insistent demonstrators of the art and science of proper living and dying; let us remember, and seek to make others remember the impressive words of William Budd, as true now as in 1873, when they were written; "and let no one suppose that this is a matter in which he has no personal interest. * * * "By reason of our common humanity we are all, whether rich or poor, more nearly related than we are apt to think. The members of the great human family are bound together by a thousand secret ties of whose existence the world in general little dreams. And he that was never yet connected with his poorer neighbor by deeds of charity or love, may one day find, when it is too late, that he is connected with him by bonds which may bring them both to a common grave."

*COUNTRY SANITATION.

*By J. Adams Hayne, M. D., Columbia, S.C.

*Mr. President and Fellow Members
of the S. C. Medical Association:
On being requested to present a*

paper as a part of the symposium on sanitation, I mentally reviewed my personal observation on country sanitation in South Carolina, and was tempted to write an article similar to the chapter in a history of Ireland, entitled, "Snakes in Ireland," which chapter consisted of these words: "There are no snakes in Ireland," and paraphrase this by saying, there is no Rural Sanitation in South Carolina, but perhaps this is going too far, and I should say there is no properly directed effort towards things sanitary. Our happy go-lucky people have not yet realized in the rural districts the necessity for precautions against preventable disease. There are some measures taken in our incorporated towns and these measures have borne good fruit.

Among the maxims that have come down to us from antiquity are these words of the Roman law giver: "The sanitary safety of the Republic is the supreme law." Whenever an issue has been joined, in which edicts of Boards of Health have been contested by groups of citizens, our supreme court has decided in favor of Boards of Health, for it is manifest that Boards of Health should be as much as possible supreme in matters of health.

One of the main reasons for the lack of care about sanitation in rural districts is due to the fact that there is a lack of organization, and each family is a law unto itself. It is our belief that if each county had a whole time health officer, whose sole duty was to see that sanitary regulations were carried out in the rural districts, and the rural policemen made to co-operate with him, much benefit would result. As it is sanitary conditions are most chaotic, and no one, not even the physicians in the State seem to know exactly what steps to

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take when an epidemic threatens. The Executive Committee of the State Board of Health is charged with the duty of the care of the health of the State, and the State Health Officer's special duty is the care of the unincorporated towns and rural districts. They have endeavored by public lectures, by the distribution of bulletins to educate the citizens of the state as to the necessity of the observation of sanitary laws.

No fact has been more thoroughly established than that the prevention of many diseases is only a question of whether the public is willing to pay to have these diseases prevented or not. The causes of many of the preventable diseases are now well known and the means to stamp them out are no longer dark secrets known only to the few. The sanitary work of the Isthmian Canal service has demonstrated that no matter how unsanitary the surroundings of a community may be, yet by proper methods of carrying out the known remedies against the spread of disease, such communities may be rendered healthy.

The cost on the Isthmus of Panama was about one cent daily per capita, and this was sufficient to reduce the death rate on a strip of land ten miles wide and forty miles long to a figure per thousand inhabitants less than half the death rate of any city in South Carolina. Try and picture to yourself a tropical jungle of exuberant vegetation, large areas of swamp land teeming with mosquitoes with no frost to set a limit to insect life, with a rainy season, lasting from April to December, tropical torrential rains, sticky, all pervading, almost insupportable heat sapping the energy of the executive officers, with a population of natives and imported

laborers speaking every known tongue and unsanitary in as many different ways as there were nations represented; yet backed up by the power of the United States government with its Thou Shalt do This and Thou Shalt Not do That, every person realizing that a violation of health regulation meant sure and swift punishment, this land was redeemed and this country made a winter resort for health purposes of the people of the United States. Now we have no such conditions in South Carolina. With a population not more than one-fourth of one per cent. foreign born, sturdy English, French, Scotch and Irish stock, Americans in every sense of the word who when they realize the necessity of rural sanitation will insist upon it, but until they do will resist for they are a people who have ever been jealous of any attempt to pass laws or regulations which seem to restrict their personal liberties. We must therefore educate the citizens so that they will demand that sanitary restrictions be carried out so that the good of the many may be conserved even at the expense of discomfort and inconvenience to the few.

The scourge of the rural districts of South Carolina is typhoid fever, and this is due first to the absolute lack of provision for the proper disposal of human filth in nearly every rural home, this being due to the lack of education and knowledge of the evil results of allowing fecal matter to accumulate around human dwelling places, and the supposition that the simple burying of this matter would prevent its doing harm.. Second: to the disregard or lack of knowledge of the fact that flies convey the germs of this disease directly from human filth to human food. Third: the country well is not what

it should be, and the poet's song of the Old Oaken Bucket has done much to make the rural dweller believe his well water pure, no matter how near it may be to his privy or his hog pen. *Driven wells with pumps* should be the slogan of rural sanitarians, and this would do much towards decreasing typhoid. Fourth: Neglecting the screening of typhoid patients from flies and the burning of all discharges from the patient. I say burning advisedly, for by no other method will the typhoid germs be destroyed. Of course, they may be treated with disinfectants, unslaked lime made into a thick whitewash being perhaps the best, but this has to be mixed for an hour with the stools before the typhoid germs are killed, and by mixing, I mean constant stirring and a complete breaking up of the fecal mass. The stools can be placed in a receptacle and boiled or burned with very little trouble.

Sanitary milk is well-nigh unknown in rural districts. If you don't believe this, observe any country milker at his morning and evening job and look at what is strained out of the milk and what it is strained through. Of course all dirt is not unhealthy, and unless the water is contaminated, or the milker a typhoid carrier, or the nurse of a typhoid patient, or the cow has laid down in a place where typhoid germs exist, simply dirty milk does not mean typhoid milk, but this milk will contain much more than its fair share of all kinds of bacteria, and will contribute but little to the rosy cheeks of the farm lassie, said rosy cheeks of the farm lassie existing largely in imagination of Spring poets and popular novel writers, for on many of the farms in South Carolina the lassies are not rosy cheeked as they by right

should be, but owing to the prevalence of such preventable diseases as malaria and hookworm, they are pale, sallow and anaemic.

If we are, therefore, to reduce the number of cases of typhoid fever in South Carolina in rural districts there must be a constant preaching of this gospel by the physicians of the State to their patients of these facts, typhoid fever is caused by a germ that is swallowed by the patient, that when a patient takes typhoid fever you may be just as certain that they have swallowed a germ coming from the discharges of another typhoid patient as that when you plant a grain of corn that it will not come up out of the ground as water melons, and also that a grain of corn has been planted. The typhoid germ is contained only in discharges from human beings, other animals do not serve as hosts. That this germ can live in ordinary soil for several months, in fecal matter longer than ordinary soil, that they can survive for five or six days in running water and have traveled in that time a recorded distance of eighty-five miles. This teaches that the popular fallacy that running water purifies itself every half mile is not true in regard to typhoid bacteria. Educate your clientele to the fact that typhoid fever is conveyed by flies, fingers, food and filth. Tell them that typhoid fever is a disgrace to a civilized community. Cities have a water supply, and like Caesar's wife, should be above suspicion. Tell your patients that surface wells, many springs and nearly all streams are conveyors of typhoid fever. Induce them to build sanitary privies, proper septic tanks, and thus properly dispose of fecal matter, and while you are educating them, immunize all you can with the typhoid

bacterin prepared and furnished free to all physicians in South Carolina from the Laboratory of the State Board of Health at Columbia, S. C. Remember that the inoculated against typhoid fever are ten times less apt to contract the disease than the uninoculated, and that the death rate in the inoculated is ten times less if they do contract typhoid fever. There were four hundred thousand cases of typhoid fever in the United States last year. This gives you some idea of what a scourge this disease is. Remember that anti-typhoid vaccination is useful without danger and gives immunity for a period of from three to five years.

Rural communities are alive to the necessity of some means of ridding themselves of malaria, but no concerted action has been taken to obtain results. The laity has been informed that the mosquito is the sole cause of malaria, but they lack definite knowledge of that kind of mosquito that causes malaria, and know but little of the habits, or habitat of the pest. To rid a community of the mosquito means concerted and intelligent action upon the part of all families of the infected area. Mosquito breeding places must be sought out and drained, if drainage is impossible or too costly, weekly oiling with crude oil or kerosene of all possible places where the mosquito can lay its eggs must be employed. Cans, bottles, hollow trees, in fact anything that can hold water for ten days may serve as a breeding place. The mosquito deposits her eggs in water, preferably in slowly running water where algae exists. Its eggs hatch into larvae or what we used to call when children wiggletails, and the larvae develops full grown mosquitoes in about ten days; hence a weekly

emptying and oiling is necessary. The habits of the malaria mosquito makes its destruction not such a difficult matter, for they do not fly far from their breeding places, generally not more than two or three hundred yards, therefore, the area to be taken care of around each dwelling house is comparatively small. Where large areas have to be drained, county, state or national aid must be obtained. In addition to destroying mosquito breeding places, houses should be screened with mosquito proof wire netting, and prophylactic doses of quinine are recommended so that if the patient is bitten by an Anopheles mosquito, malarial organisms will not be present in the blood and the mosquito not infected, for it must be remembered that unless the mosquito has bitten a person with the malarial organisms in the peripheral circulation it is not infected and cannot convey the disease. Doctors in malarial regions should train themselves not to diagnose malaria on clinical symptoms, but only on microscopic examination of the blood, and should not cease when the malarial paroxysms are no longer evident, but should be sure that they have really destroyed the malarial organism in the patient's blood. If rural communities would carry out the plan outlined above, malaria would cease to be the reproach of the South.

Tuberculosis occurs in rural districts to an alarming extent, as it is well-nigh impossible to properly disinfect homes built with as thorough ventilation as they are in the country, where tuberculosis exists, and in the majority of cases this is not even attempted, and case after case occurs in the same house, and entire families have been wiped out by this disease. The negro, susceptible as he is to this disease, is a con-

stant menace to his white neighbors. The plan of the State Board of Health for the eradication of tuberculosis is briefly as follows: *First*, education by means of lectures, bulletins, placards, and all other means of bringing to the attention of the public that tuberculosis is a contagious disease, that it is preventable, and that if taken in its early stages it is curable. *Second*, that the State should maintain a sanitarium for the treatment of incipient cases where those affected with the disease could be taken care of, and when the disease was arrested, sent to their homes properly instructed in methods of taking care of themselves and what precautions to use so that those with whom they come in intimate contact with may be protected from infection.

Rabid animals are a great source of danger in the country, and the practice of killing every sick dog, and calling them mad, prevents an exact knowledge of the actual number of rabid animals in the State. That this disease is very prevalent among dogs, is shown by the fact that since December 1st, 1912, one hundred and one heads have been sent to the laboratory, and that sixty of these had rabies and had bitten eighty-six people. The local press chronicles the death of one untreated person in Charleston. So far we have had no deaths from rabies among those taking the Pasteur treatment at this laboratory. Sick dogs should be confined, watched and not handled, and when they die, which they will do if they have rabies in five days or less, the head should be sent to the labor-

atory and a microscopic examination made. If any one is bitten by a supposed mad animal, they should immediately avail themselves of the Pasteur treatment which the State furnishes free.

I will not take up the time of the Association by enumerating many other conditions that could be remedied in country districts, but before concluding, must call the attention of the Doctors to the fact that measles, whooping-cough, scarlet fever and diphtheria are just as contagious in the country as they are in the city, and that local quarantine is just as necessary. Discourage the neighbors who think it un-Christian not to express their sympathy by sitting up with those ill or dead of these diseases, and thus carrying the germ home to their family and causing the vicious circle of contagious disease to continue..

In conclusion rural sanitation means rural education on the things sanitary, and this education must be carried on strenuously in schools, churches, and all places where country people meet. Doctors and laymen should unite in preaching the fact that most diseases are preventable, and that it costs less to a community to prevent disease than to pay for the cure of these diseases when they fall victims to them. When the people wake up to the fact that the State is spending less than two cents per capita annually for the prevention of the spread of contagious diseases, and that by spending, say 10 cents per capita, contagious diseases could be prevented, they will clamor for relief and obtain it.

Discussion of Symposium on Hygiene and Preventive Medicine

Dr. Weston: Mr. President, this has certainly been an interesting symposium today, and one which may become of importance to the people of this State. There have been certain papers here this morning that properly belong to the people of the State, so I move, Sir, that the officers of this Association be given the right and be instructed to select certain of these papers and have them published in the daily press of this state; —not from the individual members of the Association who read the papers, but as a contribution from the Association in a body, and I believe that if certain of these papers are published, especially in the Sunday press, it will meet with the object for which they have been read.

Seconded by Dr. Moore and carried.

Dr. Filmore Moore, Aiken: I would also like to congratulate the Association upon this symposium. I think it has marked a decided step forward in the direction in which we are all looking and hoping and, I trust, also praying. I think that some of the suggestions which have been made here this morning must bear fruit.

In regard to the suggestion of Dr. Coward in regard to these unholy conditions existing in our cities, and I was reminded of an experience had yesterday in the City of Columbia, of which Dr. Coward is a citizen. It was a very ingenious combination. You know that the sale of liquors is under the control of our State and we have dispensaries for the disposition of these liquors; and it is also against the law that these liquors be consumed where they are sold; but they suggest that there is a urinal in the back of a meat stall, where you can imbibe the liquors purchased. If the object was to discourage three particular things I do not think a more unique combination could be brought about: Discourage drink, the eating of meat, and to discourage the habit of voiding urine.

If you can go through that meat shop and into that public urinal and drink your

beer and then go out and proceed to order beefsteak or anything else to eat after that, then you are a hardened sinner, and that is all.

That is not an unusual combination. We have it everywhere where we have the dispensary. Now we are driving the people from drink, or to drink, I can't tell which.

In regard to the paper on home sanitation, I have an ethical suggestion to make: It is an invention worthy of attention and I am modest enough to call your attention to it: The portable fireplace which combines the maximum of heating and of ventilation. This portable fireplace has all of the virtues of any stove, in that it gives you practically all the virtues of a stove and it has the virtues of a fireplace, although exposed on all sides (made of sheet iron) and the maximum amount of heat is extracted by the air. It has also the virtue of extending up to the roof and a large suction for the heat. If you want to see that, you will have to come to my open air camp at Aiken.

I would also like to make a suggestion in regard to what Dr. Gantt has said in regard to the school children.

In the first place to ask children, day by day, to sit around and look at as ugly a thing as the ordinary school stove, is a serious offense to the ethical taste of the children. I think some sort of open fireplace should be had if it can be accomplished. That work was reported at the International Congress. The results of those investigations have interested me greatly, because it has been proven that the real danger that is involved is in the accumulation in that air of the excreta from the organisms themselves. That around each body there is a sort of aura of the excreta from that organism that forms an almost impenetrable shield, so that it soon becomes involved, as every bacteriologist will tell in that thing that destroys animal life.

One of the simplest things arrived at

for the ventilation of school rooms is the windows and doors are opened at regular intervals and the children are asked to stand up and go through various exercises during these few minutes. It also gives the children a respite from their confined attention and confined position, relieving the mind and also exercising the muscles for a few minutes. At Montmorenci, South Carolina, a few days ago I found these children going through nice calisthenics and breathing exercises,—showing the importance of proper ventilation of the school and the proper expansion of their lungs by which fresh air was taken in.

Dr. Hodges: Mr. President, just before you close this symposium I would like to say that in February, when I heard Dr. Coward read his paper at the meeting of the Tri-State Medical Association, I was amazed at the work that he and his State Laboratory are doing. Now, when I am told by my friend here what I supposed was true, but had never known before,—that South Carolina is the only State that is doing this for her citizens, I wish simply to extend to you the appreciation of an outsider for the great work that you must be doing in sanitation. When I read, for example, in your program, that you had a Committee for the study and prevention of Venereal diseases I considered that an innovation and a great movement in the right direction. Now when I heard this paper at Norfolk, and when I heard the repetition today of the work that is being done, I wish to join in thanking the State Board and the medical profession of this State, which is behind it, for the advanced work that it is doing. I think it should be known to other States, because it is such a necessary work and such an advanced work that others ought to have the benefits of it; and when I heard Dr. Coward, in Norfolk, discuss the trivial expense for the production of this vaccine, I was greatly pleased, because I knew it could be used more extensively, and made more effective. In other words, I wish to add the congratulations of my State to the gentlemen for the great work they are doing.

Dr. Coward closes.

I hardly feel competent to speak for the

profession of the State, in reply to Dr. Hodges' certainly much appreciated congratulation, except to refer again to the last part of my paper: that it rests with you, gentlemen, to take up new avenues of research and progress. I do think that, leaving out the personal side of it, we have done some things that are not realized. While a few men swamp us by calling on our assistance, a great many others we do not hear from at all, and this paper was written by a member of the Board, who thought we might bring out words of criticism. We would like to have criticisms and meet those.

The object of our laboratory is to help the physicians to suppress infectious diseases.

While I am not fully acquainted with the public health work in Virginia, I very much fear that Dr. Hodges is rather deprecating his own State in his efforts to praise us, because I know some of the men who have made their mark and are still doing it, for the public health work; and we all know that Virginia, since the beginning of the Union, has been wont to supply the rest of the country not only with the Presidents, but with physicians, health officers,—and, I think, some other things that Dr. Moore got in Columbia, also.

(Applause.)

Dr. Eggleston closes: In discussing Dr. Haynes' paper I would like to call attention to a common mistake made in suppressing malaria and the breeding of mosquitoes.

It has been found, in our experience at Hartsville, where we have done a great deal of this work, that the particular mosquito-breeder is the back yard and premises adjacent to where the mosquito is numerous. In other words, we are surrounded by ponds and marshes from which it is certain we get a small proportion of our mosquitoes, and it is disclosed that the mosquitoes from which the town is complaining are almost always bred at the home of the people complaining or upon the adjoining premises of the neighbors. Often a pond or creek is held responsible for malaria when the storm sewers or bottles or other improper containers around the premises are responsible for the evil.

SOCIETY REPORTS

THE EIGHTH DISTRICT MEETING AT AIKEN.

The semi-annual meeting of the Eighth Medical District of the State was held Monday the 21st inst. at Aiken in the Masonic Hall. About 30 or 40 physicians from the counties of Lexington, Saluda, Edgefield and Aiken attended this meeting which from an educational view point, was highly interesting—many very good papers were read and fully discussed—which no doubt were of much pleasure and advantage to all in attendance.

The papers read and discussed were as follows: "Pellagra—its Etiology, Diagnosis and Treatment, up to the present time" which was highly interesting and enjoyed by all. The opinion generally advanced was that the treatment so far, gave very little hope for recovery, and that in nearly all cases it eventually after many improvements, relapses and finally would prove fatal. Many members expressed the view that they must have treated cases of this disease many years ago before it was called to the attention of the profession by Dr. J. W. Babcock of our State, and did not recognize it at the time.

The papers on the relation of the physician to his fellow member, and the duties of the physician to the public, were highly appreciated and afterward applauded and discussed.

The papers on "Maternal Impressions," and the necessity of the physicians in small towns and the country being in any emergency able to perform any operations," were much applauded and discussed.

The Society had the honor and pleasure of entertaining at this meeting Dr. E. A. Hines, of Seneca, S. C. Dr. Hines stands high in the estimate of the South Carolina Medical Association and holds many of the most difficult and responsible offices in the gift of that Society. To show the value that they put on his reliability and ability, he now holds the position of Editor of the State Medical Journal, member of the State Board of Health, Secretary and Treasurer of the South Carolina Medical Association and other positions we cannot now recall. Dr. Hines read a paper on the organization of the medical profession and the benefits that will arise from the same. He cited the instance of our own State Medical Association where a few years ago the membership was only about 150 or 200, but since its reorganization the membership had gone up to 700 members. This highly interesting, practical, useful paper was so appreciated by the physicians present that they passed a unanimous rising vote of thanks.

The District Society was then entertained at a dinner given by the Aiken County Medical Society at the "Hotel Olwell."

After dinner the Association met again to attend to any unfinished business and to elect officers. The following officers were unanimously elected: Dr. T. C. Stone, our popular and much beloved fellow citizen, was elected President, Dr. D. U. Crosson, of Leesville, Vice-President, and our very efficient and handsome Secretary and Treasurer Dr. R. A. Marsh of Edgefield, was forced, after many

complimentary expressions of his success and true worth, to remain as such. The Edgefield Medical Society extended a cordial invitation to meet with them at Johnston in January, 1914. The physicians out of the town left that afternoon expressing pleasure at the visit to our little town and enjoyment of the meeting.

T. G. CROFT, M. D.,
Reporter.

SPARTANBURG.

Dr Sambon to be a Visitor.

The Spartanburg County Medical Society held its regular meeting with a very good attendance for a summer meeting. The matter of the Federal Government's establishing a hospital here for the care of those suffering from pellagra, tuberculosis and trachoma was discussed and those

present were unanimous in approval of such a hospital. Dr. Siler announced that the great pellagra investigator, Dr. Sambon, would visit the Pellagra Commission some time in August while on his way to the West Indies. The Society instructed the Secretary to write to Dr. Sambon inviting him to be the guest of the Society during his stay in Spartanburg, and to address it on some subject of his choosing. A committee was appointed to arrange for Dr. Sambon's entertainment and for a banquet to be given in honor of this distinguished guest.

Drs. W. F. Siler and Philip E. Garrison were elected honorary members of the Society.

No papers were read, but Dr. Haynes reported an interesting case of oxyuria.

L. ROSA H. GANTT,
Secretary.

BOOK REVIEW

New and Non-Official Remedies, 1913—
Containing descriptions of the articles which have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association, prior to January 1, 1913. Chicago, Press of American Medical Association, 535 Dearborn Avenue.

This book contains the medicinal substances which, prior to January 1, 1913, have been examined by the Council on Pharmacy and Chemistry of the American Medical Association, which appeared to comply with the rules of the Council and which, therefore, were accepted for inclusion in the annual "New and Nonofficial Remedies." The acceptance of the articles included in the book has been based in part on evidence supplied by the manufacturer or his agent, and in part on investigation made by or under the direction of the Council.

The Council desires physicians to understand that the acceptance of an article

does not necessarily mean a recommendation, but that so far as known it complies with the rules adopted by the Council.

It is proposed to issue this book annually. During the year descriptions of further substances accepted by the Council for inclusion in "New and Nonofficial Remedies" will be published in *The Journal* from time to time. This matter will be issued as supplements to the book.

Chloride of Lime in Sanitation—By Albert H. Hooker, Technical Director, Hooker Electrochemical Company. New York: John Wiley & Sons; London: Chapman & Hall, Limited. 1913.

This is an excellent description of the subject it professes to cover. We cannot know too much about the various means at our disposal for sanitary purposes.

The book contains 231 pages and gives an exhaustive resume of this method of

Sanitation as carried out in various parts of the world.

Genitourinary Diagnosis and Therapy—

For Urologists and General Practitioners, By Doctor Ernest Portner, Specialist for Urology, Berlin, Germany. Translated and edited by Branford Lewis, M. D., B. Sc., Professor of Genitourinary Surgery, Medical Department of St. Louis University, St. Louis; Genitourinary Surgeon to St. John's Hospital and Frisco Hos-

pital; Member of American Urological Association; American Association of Genitourinary Surgeons; American Medical Association, etc. Forty-three illustrations. St. Louis: C. V. Mosby Company, 1913. Price \$2.50.

This is an excellent monograph on a most important branch of medicine and surgery. It represents the best thought of modern times and its brevity favors the busy practitioner in that he is far more likely to read and profit by such a book.

Minutes of the House of Delegates of the South Carolina Medical Association, Continued from Last Issue

Sixty-fifth Annual Meeting, Held at Rock Hill, April 15, 1913

The President: There are some recommendations made in that report. What disposition shall we make of it?

Dr. Timmerman: I think Dr. Boozer should give an explanation for the necessity of those things. In order that we may vote intelligently, I think that Dr. Boozer should give an explanation.

Dr. Kollock: It strikes me the better plan would be to take up those suggestions seriatim and in the discussion these points can be brought out.

I move that report be received as information and the various suggestions be taken up in the order in which they have been made.

Motion carried.

(Dr. Boozer reads first section—"That the Medical Practitioners' Act be changed," etc.)

Dr. Boozer: The reason for the change in that particular is the fact that the "class," as you might term it,

is getting so large that it is almost impossible to handle them in one examination during the year. South Carolina is one of the few states in the Union that has only one examination during the year. Some have as many as four, and a great majority of them have two. Another reason is that the second Tuesday in June comes very close to the closing of a good many medical schools, so that the graduates are unable to come up for examination at that time; and it seems rather a hardship to make those fellows wait a whole year before they can come up again; so we thought it better to have another examination in order that all could come in. It is just a question of numbers, and of closing the schools, that we thought it more expeditious.

The President: The House is provided with a committee on Public Policy and Legislation, which might take charge of this.

By a member: There is one important feature connected with that: We are now issuing temporary licenses. A temporary license is very easy to procure. As I understand it, the German-American doctors in Columbia have temporary licenses. If we have examinations every six months, we can ask them to repeal that law, so that it will not be necessary to give them temporary licenses. It will not be inflicting any hardship on any one to wait two or five months, whereas, meeting only every twelve months, it would be a hardship, and I think that it would be a good thing to repeal the law that now grants temporary licenses.

Motion adopted.

Dr. Simons: I am not altogether clear in my mind as to the advisability of striking out "temporary licenses." Occasions might arise when it would be expedient to grant a temporary license. I am not altogether in favor of taking that privilege of the Board for granting a temporary license. I only offer that suggestion.

Dr. Boozer: Last year we granted seventeen temporary licenses, and it has been our experience, when a man gets a temporary license that is about all he generally gets. He practices as long as he can on the temporary license.

Second recommendation carried.

(Section Three read.)

Dr. Boozer: The reason for that, Mr. Chairman, is that the Board originally received \$5.00 per day. It was afterwards, in the General Assembly, changed to \$2.00, which could not apply in this instance. It is merely to get the law straightened out in that particular.

Motion adopted.

REPORT OF THE COUNCILORS.

By Dr. Neuffer, Chairman.

The Board of Councilors, as you know, is supposed to have a general supervision of the work of the Association, to act as a general committee, as it were, and to aid the President in carrying out the different enterprises in which the Association is bound up. In each district we have a councilor who looks after the affairs of his district.

You will note from the Secretary's report that we have something over 1,200 licensed practitioners in the State, and we only have some 700 members of the State Association, and of course that means only the same number of members of the different county societies. A little over 50 per cent. of the licensed physicians of this State are affiliated with the county and state associations. This I believe is due, in a great measure, to indifference of the ordinary physician himself, from the fact that those of us interested in Association work are unable to interest a great number of our fellow practitioners. We cannot get them to attend our meetings sufficiently often to realize the benefits that they derive from meeting together and talking over subjects which are and should be of interest to the medical profession. Now we are organized in every county in the State, with the exception of three, and, to give you an illustration of the indifference to which I have referred, I wish to tell you that at the request of President Rees during the year I undertook to reorganize a county society where the society had long been dead. Securing a list of the physicians—some thirteen or fourteen in the county—I wrote an individual letter to each physician.

That has been 'some six or seven months ago. I have yet to receive my first reply from any one of those letters.

If the members of the Association can devise some plan to interest those who are not members but who are licensed practitioners, we will be able to increase the membership in our Association.

We have district medical associations in nearly all of the districts of the State, and my experience, after attending a number of these meetings of the district associations, is that the district association is the greatest factor, or can be made the greatest factor in bringing the profession together than anything else. The district association—the rank and file of the profession meet, come together and read papers, those men who are working just as they are; then they discuss those papers with a great deal more practical good out of them than they do in attending even the State Association. So I wish to urge the members of the Society, in the various districts, the importance of attending and building up their district associations.

The Board of Councilors have had no matters of any great importance to come up before them during the past year that have made it necessary to call a meeting of the Board. There have been no complaints. It has seemed, so far as the Board of Councilors are concerned, that the members of the medical profession of South Carolina have been dwelling together in perfect peace and unity, and I trust that they will continue to do so.

In regard to the illegal practitioners: Of course we still have some within the State. We have some in almost every county, and it has always been very difficult to meet. It

has always been a question as to how best to deal with the illegal practitioner. You know how it is when an unlicensed man goes into a community He is going to make some friends, of course; a good many friends. Then the practitioners in competition with him undertake to report the case to the solicitor or bring a case against this unlicensed practitioner. In consequence he incurs the enmity of the other people in the community. They say he is simply jealous of this doctor getting some practice. Then if you get your case into the court of Sessions you all know how hard it is to get a conviction from a jury. The sympathies of the jury are nearly always on the side of the illegal practitioner. He has probably attended some of the jurors or has been kind to some member of their family, and it is almost impossible to get a conviction before a jury; but there has been a way found to stop the practice of medicine by an illegal or unlicensed man, and that is by injunction process.

If any of you have this trouble in your district, simply secure the services of a competent attorney and go before a judge with sufficient evidence to prove that this man has been practicing medicine and is not licensed by the Board of Medical Examiners; in nine cases out of ten you will secure an injunction by the presiding judge, because he looks upon the question as one of law and fact, and by this means you will be able to cope with this evil.

The fund on hand provided for the prosecution of illegal practitioners of medicine amounts to some \$161.00. The Board of Councilors at their meeting to-night appropriated \$25.00 to one of the districts of the State for the purpose of stopping an illegal practitioner from practicing medi-

cine; and the Council stands ready to appropriate upon proper presentation of facts, the remainder of this sum.

The matter of the State Journal. (Reads.) "The Journal shall be published under the supervision of the Board of Councilors."

Dr. Hines has had a very hard year with the Journal. As his report shows, when he took charge of the Journal it was in debt. By close attention he has worked the Journal not only free of debt but with a surplus on hand. As he admits himself, he has done that to the sacrifice somewhat of the scientific part of the Journal.

Now we all want to get out of the hole, but we still want to keep our Journal up to a high scientific standard. He cannot do this by himself, and we all want to do our duty towards the Journal. Now how many of us could have written an editorial once or twice during the year, and we have not done so? How many of us might have written an editorial once or twice and sent it to Dr. Hines, and we have not done so? Now if we wish to make this a Journal of which we will be proud and which will attract the attention of the Medical profession of the State, we have got to give Dr. Hines our support—write articles for that Journal and do our part. It is obligatory upon us to help support the Journal and to build it up.

Report referred to the Secretary for publication.

Report of delegates to the American Medical Association by Dr. Hines.

To the Officers and Members of the South Carolina Medical Association:

Gentlemen:—Your delegates to the meeting of the American Medical Association hereby submit the following report:

We were present at the meeting held at Atlantic City June third to sixth, 1912, and

attended all the meetings of the House of Delegates. The meeting was formally opened by the President's address to the House. President Murphy, in his annual address dwelt on a number of topics of value to the Association, laying most stress, however, upon the Owen Bill, and showing the argument against it, advanced by the League for Medical Freedom, to spell anarchy and unbridled license, and not intelligent organization and freedom. He recommended that the legislative work be transferred from the Council of Public Instruction to a Council on Medical Legislation. From this plan he said he hoped to secure a federal independent health service. He then went on to discuss organization, the Journal and the work of the different committees, giving a most interesting resume of the work done during the past year. After the President's address the various routine work of the House was taken up in the shape of reports of the various committees and boards. These were all read and discussed and are far too lengthy and diffuse for us to deal with in detail. We must refer the members of this Association to the minutes published in the Journal of the action of these various bodies.

There were two points which struck your delegates as most important to this Association. One was the discussion upon the report of the Council on Medical Education. This report went into a detail of their tour of inspection of the medical colleges of the United States, and after a lengthy report they reached the conclusion that all medical colleges should be classified under three heads, to which they suggested a fourth, namely, Class A Plus, colleges receiving a rating of 70 per cent or above in each and all divisions of date. The three other divisions are:

Class A: Colleges receiving a general average of 70 per cent. or above, but who in the one or two or three divisions fall below a rating of 70 per cent.;

Class B: Colleges receiving a rating below 70 per cent. in the four or more divisions, but attaining a general average of at least 50 per cent.

Class C: Colleges receiving a rating of a general average of at least 50 per cent.

This lengthy report of the Committee on Medical Education showed so thorough and laborious work that it was moved as a tribute to the Chairman that the report be adopted by a standing vote. This motion was unanimously carried.

The second point of more than passing interest was a report of the Committee on Re-apportionment. This committee recommended to the House that the apportionment for the next three years should be on a basis of one delegate for every seven hundred, and fraction thereof of membership of the constituent state association reported as of April 1, 1912. The apportionment as recommended was adopted. By this re-apportionment the number of the House of Delegates was reduced from 151 to 149. The South Carolina State Association as apportioned under the old rating of one delegate to every 675 were entitled to two delegates as the number of members handed in was 688, but under the new rating of one delegate to every 700 members we are now entitled to only one delegate. Four other states suffered a loss of one delegate, likewise while three states had an increase of one delegate each. Until, therefore, our State Association brings its numbers up to 700 or over, we will be allowed only one delegate to the meetings.

On the fifth meeting, the business being nearly concluded, the election of officers was gone into with the following results:

Dr. John A. Witherspoon, of Nashville, Tenn., President. There was no opposition, and no other nomination.

First Vice-President—Dr. P. A. Harris, of Patterson, N. J.

Second Vice-President—Dr. J. L. Heffron, of Syracuse, N. Y.

Third Vice-President—Dr. H. M. McClenahan, Omaha, Neb.

Fourth Vice-President—Dr. H. D. Fry, Washington, D. C.

Secretary—Dr. Alexander R. Craig, Chicago, Ill.

Treasurer—William Allen Pussey, Chicago, Ill.

Trustees—Dr. M. L. Harris, Chicago, Ill.; Dr. C. A. Daugherty, South Bend, Ind.; Dr. W. T. Councilman, Boston.

Member of the Judicial Council—Dr. George W. Guthrie, Wilkes-Barre, Pa.

Member of Council of Health and Public Instruction—Dr. Walter B. Cannon, Boston.

Members of Council on Medical Education—Dr. James W. Holland, Philadelphia; Dr. W. D. Haggard, Nashville, Tenn.

Before the adjournment of the meeting, President Abram Jacobi addressed the House, expressing his appreciation of the work done and thanking them for their kindly reception of him as President of

the Association. The following resolution was passed:

That the gratitude of the House of Delegates be extended to Dr. Conway and his associates in the profession in Atlantic City, and to the Governor and people of New Jersey for the cordial and splendid treatment of the members and the guests of the Association.

This motion being unanimously carried, the House adjourned.

Respectfully submitted,
JOHN L. DAWSON,
E. A. HINES.

Report referred to the Secretary for publication.

REPORT OF COMMITTEE ON NECROLOGY.

Robert Paine Ransom, Williamston, S. C.

Born in Ruthford County, Tennessee, December 9, 1857, a son of distinguished parents.

He received his education at Emory and Henry College, Virginia and Vanderbilt University. He studied medicine at Vanderbilt University and the University of Tennessee.

Practiced medicine in Kentucky, Louisiana, Georgia, and South Carolina.

He married Miss Lillie Gray, of Graysville, Ga., in 1887, of which six children were born; three and their mother survive him.

He died of a brief illness May 30th, 1912 at Williamston, S. C.

He was a good man, a faithful follower after high ideals in professional and civic life. A man broad in his conceptions of right, high in his beliefs about duty. He was loved by all.

J. M. Richardson, Anderson, S. C.

Born December 25th, 1851; died March 10th, 1913; age 62 years.

Took one course at the University of Maryland, but finished at Charleston, S. C.

Practiced medicine at Piedmont for several years, later taking up his profession at Anderson, S. C., where he died March 10th, 1913.

E. W. Pinson, Rock Hill, S. C.

Born September 17th, 1869.

Finished medicine March, 1890, at Louisville Medical College.

Practiced two years at Double Branch, Georgia. Then engaged with his uncle,

J. H. Miller at Cross Hill, S. C. He became assistant surgeon of Seaboard Air Line Railway for ten years.

He was confined to his bed six months. Death caused by paralysis.

Maddison Wallace Culp, Union, S. C.
Born in Union, S. C., December 4th, 1857.

Attended Union Male Academy until 1874; then Kings Mountain Military Academy, finished his literary education there.

Read medicine under Dr. Thomas at South Carolina Medical College.

He was a good doctor and a successful business man.

Died March 8th, 1912.

H. J. Salley, Salley, S. C.

Died about September or October, 1912; age 43. He graduated from the Medical Department of the University of Georgia and practiced at Salley ever since his graduation.

He leaves a wife and three children.

He was highly respected in his community both as citizen and physician.

J. A. Milhouse, Perry, S. C.

Died from an accident at Hotel in Columbia, S. C., October 1912, from failure to turn off the gas jet perfectly, and found dead in bed the next morning. Age about 55.

He practiced his profession at Perry, S. C., since graduation. He was quite an able practitioner and enjoyed quite a reputation in his community. A high toned and honorable gentleman, both as a citizen and physician.

He leaves a wife and children.

He graduated from the Medical College of the State of South Carolina.

H. A. Odom, Springfield, S. C.

Graduated from the Medical College of the State of South Carolina in 1886, and practiced for about 28 years at Springfield, S. C.

Died February 26, 1913, from Nephritis. Age about 48 years.

Highly respected in his community as an able and conscientious physician and citizen.

O. B. MAYER, Chairman,
W. A. TRIPP,
T. G. CROFT.

Report received as information.

Report of the Committee to collect and preserve the Records—Dr. Hines.

Since our last meeting we have collected several things. A rare treasure is the Transactions covering the years 1848 to 1854, in one volume, which gives the organization of this Association and the entire transactions for the years I have mentioned. This is the one volume that I have been so anxious to secure and we owe a great debt for this to Dr. Walter Porcher, of Charleston. Dr. Porcher kindly presented to the Committee various other years of transactions within the last twenty-five years. These were not so important as the volume mentioned, because we have no record in our minutes before the reorganization of 1869 except this volume. Now we are very anxious to secure the record from 1854 to the reorganization after the war—1869. The Committee wishes to have every one of you search the country over for these particular records.

We are indebted to Dr. Jervey, of Greenville, for a number of volumes of the Journal, but altogether, if we can secure now an accurate record for the years mentioned above, we will have in our possession the entire record of this Association since 1848. The work is still going on, but we need your assistance.

Report referred for publication.

Introduction of new business.

The President: I have a letter here received from the Department of the Interior, which is not a matter of extraordinary importance but it had probably better be brought to the attention of the House of Delegates.

(The letter is here read.)

That is the substance of that letter. The President has not that bill before him. If it was sent with that letter it was misplaced somewhere and I have no recollection of it. It would hardly seem that the House of Delegates can take action on it without knowing the details of that bill.

This matter is before the House of Delegates.

Dr. Hayne: It strikes me that that matter should be submitted by the Department of the Interior to the different State Boards of Health. As the Secretary has not seen fit to communicate with the State Board of Health of South Carolina, I move that the House of Delegates submit this matter to the Executive Committee, for their action.

Motion carried.

Dr. Hines: In reference to the member-

ship in the American Medical Association, I have a telegram this morning from Dr. Craig, Secretary of the A. M. A., to this effect:

(Telegram is here read.)

I presume that many of you understand that the plan proposed is that when a man joins his County Medical Society he immediately becomes a member of the State and American Medical Associations, without any extra dues whatever. In the event that he cares to become a more active member—taking the Journal and paying his \$5, he will be known as a fellow of the American Medical Association. One of the reasons for this change is this: We elect here a delegate to the American Medical Association. The delegate is elected by comparatively few members in our House; possibly not more than ten or twenty per cent., and the idea is to secure this change so that organized medicine will be more systematized, from the County Society up to the National Society, as is done in many organized bodies throughout the world.

I should like very much, as a delegate to the American Medical Association in the past, and as a member of this conference of Secretaries in October, to see the House of Delegates endorse the proposition if they think that they approve it sufficiently.

The recommendations by Dr. Craig endorsed.

Dr. Williams: I should like to call the attention of the House to some pregnant suggestions made by the President earlier in the evening. We are under the head of new business, and I am sure we would like to take up the President's suggestions and dispose of them, and I make that motion: To take up the recommendations made by the President for consideration at this time.

Motion carried.

The President here reads the first recommendation read earlier in the evening.

Dr. Williams: You make no provision in there as to who is to elect this party. It strikes me that there should be some discussion as to how that man should be elected. Then, how are you going to pay him?

The President: That is provided for, if he is to be a new officer. It is provided for in the constitution—that all officers must be elected by the House of Delegates.

Dr. Williams: I move the adoption of the resolution.

Dr. Hayne: I move an amendment to

this: That this officer be paid \$4.00 a day and his traveling expenses.

Dr. Williams' motion, and Dr. Hayne's amendment thereto carried.

Second recommendation read.

The President: With reference to the last portion of that recommendation: The President was not aware at the time that the representation in the American Medical Association had been reduced and that we are only allowed one delegate for every seven hundred members; and the membership of the South Carolina Medical Association being less than seven hundred, we are only entitled to one delegate.

Second recommendation adopted.

Third recommendation read.

Dr. Harry Wyman: I think we will do better and have a larger membership by our present plan.

Dr. Timmerman: I move that we do not accept the third recommendation.

Dr. Timmerman's motion carried.

REPORT OF THE COUNCILORS.

Second District—Report read by Dr. Timmerman for Dr. Gyles. Report referred for publication.

Report of Councilor—Second District.

In Hampton County on account of the smallness in number of the doctors and owing to the geography of the County, I have had no, or practically no, encouragement to organize a society, so we are trying to have the doctors of Hampton unite with us in Barnwell and I believe that quite a number of them will do so.

In Bamberg County they are alive and wide awake, having good meetings regularly and are doing a good work.

I visited a few months ago in Orangeburg, endeavoring to inject new life into Orangeburg-Calhoun County Society with good success and with the promise of good steady work in the future.

We have held two very successful District meetings in the past year; one in Blackville and the other in Bamberg, which were well attended and thoroughly enjoyed. Our next District meeting to be held in St. Matthews in July.

I think on the whole that No. 2 is coming all right.

Respectfully submitted,

R. A. GYLES, M. D.,
Councilor Second Medical District.

Third District—By Dr. G. A. Neuffer. Report referred to the Secretary for publication.

Report of Councilor—Third District.

Abbeville, S. C., April 15, 1913.

House of Delegates,

Rock Hill, S. C.

Gentlemen:—I herewith submit my report as Councilor of the Third District.

The members of the profession in this District are active, wide awake, and keep fully up with all progress made in medicine and surgery.

There have been two meetings of the Third District Medical Association, one at Greenwood and one at Laurens. These meetings were well attended, the subjects were practical, and the discussions full.

It is my opinion that the district meeting is the greatest factor in bringing the rank and file of the profession together; and that a great amount of practical benefit is derived from them.

I have visited the societies of Laurens, Greenwood and Abbeville. These counties are meeting regularly and doing good work.

I have been unable to make a visit to Newberry.

Respectfully submitted,
G. A. NEUFFER,
Councilor Third District,

Fourth District—Report read by Dr. C. B. Earle. Report referred to the Secretary for publication.

Report of Councilor of Fourth District.

Gentlemen:—I have to report that I have visited all the County Societies in my District during the past year.

In Anderson the profession as a rule are in good condition and seem to be in harmony with themselves. In the section between Anderson and Greenville last year a condition arose that bid fair to be serious over a question of fees charged in mill towns, but I think the condition is adjusting itself and hope little friction will result in future.

In Greenville about the City the profession attend regularly, but very few of the country practitioners meet with them, usually only three or four being present at the monthly meetings. The same condition exists as was present in Anderson about the fees for attendance on cotton mill operatives.

In Oconee County the conditions are exceptionally good, every physician in the county being a member of the County So-

society and attending as regularly as possible.

In Pickens the Society meets regularly and seems to be of value to its members. Often physicians are invited from other counties and adds to the interest of their meetings.

In Spartanburg the Society seems to be well attended but there is a large amount of discord and dissension among its members in the City. A movement is on foot to combine the hospitals of the City and I hope that better feeling will be created over having something of interest to all.

In Union the conditions are as good as could be wished and the profession appears to be united in working for the good of each other and the community at large.

There have been no prosecutions for illegal practice by me during the past year.

Several have stopped on being notified that they would be prosecuted if they persisted in practicing. One in Union County wrote me that he would stop and also thanked me for notifying him.

In other counties attempts have been made to get testimony against several irregulars but for some reason or other have failed.

All of which is respectfully submitted,
C. B. EARLE,
Councilor Fourth District.

Fifth District—

Dr. M. J. Walker: The Fifth District is fairly organized. Every county in it is in fairly good working condition except Lancaster. They have accomplished nothing and it has been impossible to get them to work. The other counties are in good condition. My own county with 38 doctors, 33 are members. Cherokee is well organized and doing good work. All the illegal practitioners have been stopped in my county. They were not prosecuted. In writing them they stopped practicing and claimed they would go before the Board of Examiners this summer.

A good many practitioners along the North Carolina line, licensed there, have no license in this State. What shall we do in regard to this? The South Carolina men are not allowed to have any practice over the line.

By the President: What action will the House take in reference to practitioners from North Carolina practicing in this State without license?

Dr. Burdell: I would like to ask the

members of the Board of Examiners if they reciprocate with North Carolina?

Dr. Wyman: No, sir. North Carolina refuses to reciprocate with us. They said, however, that they would give the members of our Board reciprocity license, etc.

Dr. Kollock: I do not see why the practitioner from North Carolina should be allowed to come into this State and practice. They can be kept out perfectly well. A man used to come from Charlotte and make trips into this State regularly, staying three or four days at different places. He simply had to be notified if he desired to practice in this State he would have to come before the State Board.

I think that the Councilors should notify such practitioners that they will be prosecuted.

I move that the Councilors from the border counties notify practitioners from North Carolina, whenever they know of their coming into this State, that they are liable to arrest for breaking the laws of this State.

Dr. Fishburne: I second Dr. Kollock's motion, and I would like to amend that by stating that if they persist, action will be taken against them. It is just the same as a man living in this State and practicing without a license.

Dr. Boozer: I would like to say a word in discussion of that matter: In the first place, I am a North Carolinian. I practiced for nine years in North Carolina. I think they are a very honorable set of men in North Carolina, and I think the House of Delegates of the North Carolina Medical Society should be informed of this situation, and it seems to me if our practitioners on the border-line go over into North Carolina and do any practice I believe that North Carolina would reciprocate. That does not mean general reciprocity between the States, but simply on the border-line. I do not see how it would be possible to draw the line on the border-line. I believe the thing could be adjusted amicably and pleasantly.

Dr. Kibler: That is a little bit different from a man going into North Carolina or into South Carolina and practicing without a license. They are lawbreakers, technically but not morally. They have license in North Carolina, and just going beyond the line to make a call, to threaten them with prosecution would be a small thing, I think. We do not want their enmity, and while we do not reciprocate with them or they with us, yet it would look like a force

measure and we want to treat them fairly. I think we ought to go slow, and for that reason I move to table the motion of Dr. Kollock.

Dr. Walker: I meant men who live just across the line, and one-half or two-thirds of their practice is in South Carolina, and our men are not allowed to do a general practice in North Carolina. They are not prohibited from a few calls.

Resolution offered by Dr. Kollock and amended by Dr. Fishburne and carried by a vote of 15 to 13.

Dr. Kollock: I would not have it thought that the practitioners in this State are discourteous to the members of the profession in North Carolina, but it is simply a matter which has to be decided one way or the other, and I rather, since making the motion, like the idea of having this matter laid before the House of Delegates of North Carolina for discussion, by a communication from this House of Delegates; but I do not believe they can make a reciprocity which would be confined to a few border men of the State. I think that would make too much confusion, and I think, therefore, the only way would be for the councilors of these border counties to write letters to the gentlemen on the border and call their attention that it is against the law. First call their attention to that. I would rather have the matter thoroughly aired, and have every member who wishes to say anything to say it. I think we might as well settle it to-night, if it is possible to do it, and I would like to hear the opinion of some other gentlemen.

Dr. Harry Wyman: It is well for us to discuss it, but the law applies to that the same as if they lived in the interior of the State, and I think our members on the border counties should have as much protection as the man in the interior of the State and the question is simply here now. The councilor wishes to know if he shall get after those people as much as those in the interior of the State. The law is fixed on the subject.

Dr. Klugh: In regard to the action of the North Carolina people, they do not allow our men to practice, I understand. I think our men along the border should have the same privileges that they have. If North Carolina allows our practitioners to do one-half or two-thirds of their practice in North Carolina, I think it would be all right for North Carolinians to do work in South Carolina; but if North Carolina is protecting her men, I do not see any reason

why South Carolina should not protect hers.

Dr. Walker: A man can evade the license in North Carolina and do most of his practice in South Carolina. I would like to know what to do.

The President: The House is in possession of these reports made by Dr. Walker, and he is asking for some instructions as to how he should act. Will the House take some action on it?

Dr. Wyman: I move that Dr. Walker proceed with these cases the same as all other cases.

Dr. Davis: If a North Carolinian breaks the North Carolina law, then cannot a South Carolinian break the law too?

Dr. Hayne: One phase of that: A doctor practicing medicine in North Carolina had a case of scarlet fever in South Carolina and he said he was a practitioner of North Carolina, and refused to obey the laws of quarantine. He also distributed a large amount of anti-toxin—by a North Carolina physician.

Dr. Kollock: I am willing to withdraw my motion, if some better motion can be offered.

Dr. Wyman: I will re-state my motion: That Dr. Walker be instructed to proceed with these cases on the border of South Carolina exactly as they would be taken up in any other portion of the State.

Motion carried.

Councilor from Sixth District absent.

Report from Seventh District read by Dr. C. F. Williams and referred to the Secretary for publication.

Report of Councilor of Seventh District. Mr. President and Members of the House of Delegates:

We cannot boast of an enthusiastic district meeting nor a district meeting of any kind so far as that is concerned, and while the spiritual, I mean medical growth may not be as pronounced in the Seventh District as some of the others, yet we of the Seventh are not afraid to compare nor are we ashamed of the showing we make.

Desiring to give you some definite information about the status of the profession in our District, I have, through the kindness of the secretaries of the societies comprising the District, collected some data which speaks for itself.

To be brief the following inquiry was

sent to each of the county secretaries, who responded promptly.

1. How many doctors in active practice in your county?
2. How many are members of your society?
3. How many practicing without license?
4. Are any licensed physicians ineligible for membership on account of unethical methods? State number.
5. How often does your society meet?
6. What is the average attendance?
7. How many are eligible for membership who are not members?
8. Has your society invited the eligible members to come in?

Condensing the information received and arranging in alphabetical order we find as follows:

Clarendon County—Eighteen practicing physicians in the county—sixteen members of the society and the applications of the other two in the secretary's hands to be acted on at the next meeting. Monthly meetings with an average attendance of fifty per cent.

Georgetown—Ten physicians in the county, all members of the society. Monthly meetings with an attendance of from 30 to 50 per cent.

Lee County—Seventeen physicians in the county, nine members of the society. Two practicing without license, two with temporary license, one ineligible on account of unethical methods, two who are eligible but have not joined. Monthly meetings with ninety-five per cent. attendance.

Richland—Sixty-seven in active practice, sixty-two members of the society. Four ineligible on account of unethical methods, one, the celebrated German American Doctor, holds a temporary license. Of the sixty-two members of the society and classed as in active practice, seven are engaged in State Board of Health Work, devoting their entire time to it. The society meets once a month with an average attendance of forty-five per cent.

Sumter—Twenty-five physicians in the county, twenty members of the society. The five non-members are eligible for membership but give as their reason for not joining the distance they would be called upon to travel in attending the meetings. Monthly meetings with an attendance of fifty to sixty per cent.

Williamsburg—Eighteen practicing physicians, fourteen members of the society. Two non-members who are eligible for membership, two practicing without license.

Has had only three meetings during the year with an attendance of four, seven and three members respectively.

Tabulating the figures for the entire district we find that there are 154 physicians in active practice. That of this number 133 are members of their respective societies; three hold temporary licenses, exclusive of our German American friend, and are therefore not eligible, leaving only eighteen who are not identified with some society. Of this eighteen, five, we are sorry to admit, are ineligible on account of unethical methods.

Except for poor Williamsburg and the members of this society are only sleeping to wake this year with new vim and vigor, this inquiry shows that more than half the doctors of the district come together each month for the purpose of discussing medical problems—seeking information which will better enable them to relieve suffering mankind, prevent disease, and aid in the uplift of the people. So, to those of you who look upon the Seventh District with pity and as the joke of the Association, we challenge you to make the same inquiry we have made and see who shines brightest in the answer.

I desire to express my thanks to Drs Harvin of Clarendon, Moorer of Georgetown, McLure of Lee, Barron of Richland, Wilson of Sumter and Beckman of Williamsburg, secretaries of their respective societies, and to whom I am indebted for the information contained in this report.

Respectfully submitted,
C. F. WILLIAMS,
Councilor Seventh District.

Report from Eighth District.

I visited each of the societies in my district one or more times in the past year. One had gotten into a very quiet stage and was almost out of existence but has taken on new life. The meetings seem to be fairly well attended.

In July a district association was organized at Red Springs. That was fairly well attended and the Association met at Batesburg. The discussions were very free and full.

One of the rules adopted by the district association is that the papers are by men of the Association and not by those who live outside. We think it is better to develop our local men, so as to cause them to enter into the discussions of the Association, whereas if we had our specialists they would neglect to do it. We, unfortunately,

still have one or two illegal practitioners, and a suit is now pending against one of them.

Dr. Hines: There is an important amendment to the by-laws, Mr. President, which, if we could just change a little at this meeting, would be of material benefit to the Journal. Two years ago we adopted this by-law:

Amendment to By-Laws.

The annual subscription to The Journal of the South Carolina Medical Association shall be \$2.00. The price to members of the South Carolina Medical Association, however, shall be \$1.00 per annum. Members of the State Association who do not desire to subscribe to the Journal shall pay dues of \$2.00. Those desiring the Journal shall pay \$3.00 a year.

The collecting of these monies shall continue to be in the hands of the Secretary of the local society, who shall transmit the dues to the Treasurer of the State Association, and the subscriptions to the editor of the Journal.

Adopted by House of Delegates April 18, 1911, Charleston, S. C.

Now, Mr. President, that was adopted because of the requirement of the postal laws; that is, in order to get the Journal in as second-class matter we had to make this change. Since that time the Third Assistant Post Master has reversed his decision.

Now, Mr. President, this amendment here has never been very thoroughly understood throughout the Association. There are a few men who do not take the Journal, as they have a right to do, on account of that by-law, but that was necessary under the ruling. Now, on the other hand, in order to amend the by-laws, chap. 11, page 16, we find this:

"These by-laws may be amended by any session," etc.

That is a by-law and that was overlooked in our amendment requiring the House of Delegates to attend to all its business in one day, and therefore I should like, as editor of the Journal, very much to amend this by-law by striking out this proviso and make the annual dues \$3.00 including subscription to the Journal \$1.00. Just how this is to be done I do not know, as we have only one day in which to transact our business. I should like very much if it could be settled to-night, along the lines suggested.

Dr. Neuffer: Sometimes you cannot do things just exactly the way it is said they

must be done. It seems to me an easy way to do this: If no one raises a point of order it will be all right. When the amendment was adopted in 1910 requiring the House to transact all its business in one day, this amendment was overlooked—requiring any change in the by-laws to lay on the table one day. You see it is an impossibility to ever change any by-laws we have, because we have only one day; then we cannot let the by-law lay on the table a day and act on it the next day; therefore I want to make this motion: That chap. 11 be changed so as to read: "These by-laws may be amended at any annual session by a majority vote of the members present at that session." I admit that is a little irregular, but otherwise you will have to let that amendment remain the same and any other amendment in the book.

Dr. Robert Wilson: Isn't it in line with parliamentary practice to change a by-law by unanimous consent?

The President: That is the impression of the chair, and this is a matter of great importance that has been introduced by Dr. Hines, and the defect in the Constitution is very important, as pointed out by Dr. Neuffer.

Dr. Neuffer's resolution seconded by Dr. Kollock and carried.

Dr. Hines: What I wish to suggest is that this by-law be changed to read as follows:

That the annual dues of the South Carolina Medical Association shall be \$3.00 per member, which shall include \$1.00 per member subscription to the Journal.

Seconded by several and carried.

Election of Officers.

The president: Nominations are in order.

Dr. Robert Wilson: I would like to place in nomination for the presidency of this Association the name of a man who has been a member for a number of years, and has been most faithful in his attendance upon our meetings, and who has also worked very faithfully for the interests of the Association—Dr. Weston, of Columbia. (Applause.)

Seconded by Dr. Walker.

Dr. C. B. Earle: Few men in this Association have worked more faithfully and have a record of fifteen years' attendance on this body. I think that record can hardly be duplicated by any of us and I take great pleasure in seconding his nomination.

Dr. Tripp: I move that nominations be

closed and the Secretary be instructed to cast unanimous vote for Dr. Weston.

Dr. Neuffer: I move that the rules be suspended and that the regular order of election be done away with.

Motion carried and the Secretary casts unanimous vote of the Association for Dr. Weston as President of the Association.

First Vice-President.

Dr. Klugh: I would like to place in nomination a man who has been a member of South Carolina Society for about thirty years, who has served the Society in private and public life. In public life he has met defeat in defending public legislation for inspection of school children. This is Dr. J. H. Miller, of Laurens, S. C.

Dr. Kibler: I take pleasure in nominating a man who has done good work in this Association—Dr. W. D. Ouzts, of Edgefield.

Seconded.

Dr. Burdell puts in nomination Dr. J. R. Miller, of Rock Hill.

Dr. Earle: I move that nominations be closed and that ballot be taken, the one receiving the highest vote to be First Vice-President, the one the next highest the Second Vice-President, and the third the Third Vice-President.

Motion carried.

The following elected:

Dr. J. R. Miller, Rock Hill, First Vice-President.

Dr. W. D. Ouzts, Edgefield, Second Vice-President.

Dr. J. H. Miller, Cross Hill, Third Vice-President.

Secretary-Treasurer.

Dr. Swygert: I desire to put in nomination Dr. Hines for Secretary-Treasurer. He has made a most excellent officer. I do not see how we could beat him, and I congratulate him upon doing as well as he has.

Upon motion nominations closed and the President instructed to cast unanimous vote for Dr. E. A. Hines, the present incumbent.

Medical Examiners.

First District—J. T. Taylor.

Third District—P. G. Ellesor.

Fifth District—W. W. Fennell.

Seventh District—J. J. Watson.

The President: I would say that by request of Dr. Fennell, as he has been elected one of the Trustees of the Medical College of South Carolina, that he would not stand for re-election.

Dr. Aimar: If Dr. Fennell feels that way about it. I would move that other members named be re-elected.

Dr. Tripp: Dr. Ellesor did not fill his place last year. If his health is in such condition that he can attend to his duties, I would like to hear from him.

Dr. Mayer: The Doctor visits Columbia and other places now, and I suppose if he had not felt that he could serve on the Board, that he would have written a letter explaining the situation. He is able to be out and is going around again.

Dr. Timmerman: I think the members from the respective districts should nominate the men who are to serve in those districts.

Dr. Wyman: I think Dr. Timmerman's suggestion a good one. I do not think we should pass a motion shutting them out from it.

Dr. Aimar: I withdraw the motion. I just made it to expedite matters. I do not think it well to change the personnel of the Board so much, but I withdraw the motion.

The President: The First District has been filled by Dr. Taylor, third by Dr. Ellesor, fifth by Dr. Fennel and seventh by Dr. Watson.

Drs Taylor and Watson nominated.

Dr. Burdell: I nominate Dr. John Lyon.

Dr. Mayer: I nominate Dr. Ellesor.

Above nominations seconded.

Dr. Williams: I would like to second the nomination of Dr. Walker, in the nomination of Dr. Pressley of Clover.

Dr. Tripp: I move that the nomination of Doctors Taylor of the first, Watson of the seventh, and Pressley of the fifth be closed and the Secretary be instructed to cast unanimous ballot for these three gentlemen.

Motion carried and Secretary instructed to cast unanimous vote of the Association for the above named gentlemen.

Dr. Simpson nominated for the Third District.

Dr. Tripp: Did these men attend the last two meetings?

Dr. Burdell: Dr. Lyon attended the past two years.

Dr. Mayer: I would like to state that Dr. Ellesor did not attend the last meeting of the Association. He was in bed sick then, but he attended the one before that.

Dr. Tripp: I would like to put in nomination Dr. Lee Sanders, of Anderson, of the third district.

The President: The four nominations for the third are: Drs. Ellesor, Simpson, Lyon and Sanders.

Dr. Carpenter: I move that the delegates

from the third district retire and agree upon a man for the third district.

Upon motion Dr. Carpenter's motion tabled.

Votes Cast—Dr. Ellesor 12; Dr. Simpson 7; Dr. Lyon 14; Dr. Sanders 9.

Upon motion of Dr. Swygert the two candidates receiving the highest number of votes voted for again.

Motion carried.

Second Vote—Dr. Lyon 25; Dr. Ellesor 17; Total 42.

Place of Meeting.

Dr. Carpenter: I take pleasure in extending to the Association an invitation to meet in the City of Greenville. We will do our utmost to make the stay of the members of the Association pleasant.

Dr. Earle: I desire to nominate Dr. C. F. Williams, of Columbia, for an organizing officer.

Dr. Williams: I do not think that I could possibly serve, if I should be so fortunate as to be elected. I do not see why Dr. Earle nominated me. I think if the editor of our Journal and the Secretary of the Association could see his way clear to accept this position, that no man in the State could fill the position so well as Dr. Hines.

Seconded by several.

Dr. Earle: If Dr. Williams insists upon it I will withdraw his nomination and second the nomination of Dr. Hines.

Dr. Hayne: I move that the rules be suspended and that the President cast the unanimous ballot of the Association for Dr. Hines as organizer of the South Carolina Medical Association.

Motion carried.

The President: We have to elect here the following councilors: The present incumbents are: Dr. M. G. Elliott, Dr. G. A. Neuffer, Dr. M. J. Walker, and Dr. C. F. Williams.

Dr. Burdell moves that the rules be suspended and that the Secretary cast the unanimous ballot of the Association for the Doctors named.

Dr. _____ We have an invitation to meet at Florence. It has been ten or twelve years since the Association has met in that section of the State, and from the reports I have heard I can see the benefits to the various sections of the State following these meetings. Our section of the State needs this meeting at this time. We are badly behind in membership. Some counties in our section have no society at all.

The interest there has lagged to the extent that I think a meeting there would stimulate things very much and would increase the roll of membership in our Society very much in the next year. I believe that that section has been slighted in the meetings of this organization. So many doctors in that section do not attend these meetings. If we had a State meeting down there I believe we could stimulate new life and add many members to this Society, and I think that section is entitled to it. The chamber of Commerce of Florence join us in this invitation, and also the Civic League.

Dr. Wyman: We want you to come to Aiken. Every citizen of Aiken has issued an invitation.

Dr. Kollock: I second the nomination of Florence. It is an easy place to get to and I think a little work in that section of the State would do a great deal of good.

Dr. Carpenter: I desire to renew my invitation to Greenville.

Invitation to Aiken seconded.

Dr. _____ Florence made quite a nice offer last year and I am heartily in favor of going there this year.

Dr. Timmerman: It has been twenty-five years since they met in Aiken. They have men now who will know how to enter-

tain and they entertain distinguished people from this State and elsewhere, and I invite the Society to meet at Aiken.

The President: I desire to read two invitations from the Isle of Palms, inviting the Association to meet with them next year.

Votes Cast—Florence 26, Aiken 10, Greenville 6, Isle of Palms 1. Total 43.

The President: The House of Delegates stands adjourned.

Upon numerous requests for a speech, Dr. Weston, the newly elected President said:

That this is the highest gift in your keeping goes without saying. That this is a high honor is conceded. It is a profound obligation for the most diligent and painstaking work in behalf of this Association, and I promise you that I will do my utmost to further the interests of the Association, and I sincerely ask your co-operation in building up this Society and in doing for the people of South Carolina more, if possible, than the medical profession has ever done for any people of the United States.

Again I thank you.

(Applause.)

Minutes of the Scientific Session of the South Carolina Medical Association, Held at Rock Hill, S. C., April 16-18, 1913.

The President, Dr. C. M. Rees, of Charleston: The Association will come to order. We have with us Dr. Bays, who will open the meeting for us with a divine invocation.

Dr. Bays: Oh Lord, our Lord; how excellent is Thy Name in all the earth. Thy glory is set above the heavens. We humbly come into Thy holy presence this morning, we trust, with grateful hearts, for the mercies and the blessings of this hour. Thou art our Shepherd, and we shall not want; Thou art our Son upon the Right Hand; Thou hast been our refuge always; Thou hast been careful and kind of us always, in all the years that are gone; and, **a3**

we come into Thy presence this morning, we do so conscious of the fact that all we have and are, all the blessings and comforts of human life come from God. We invoke Thy blessing to rest upon us as we come before Thee in the name of Christ; we thank Thee for this hour and for the occasion that calls us together at this hour; we thank God for this company of intelligent physicians; we thank God for that noble, self-sacrificing profession whose ministrations reach every phase of human life, every phase of human suffering, among all classes and conditions of mankind, the high and the low, the rich and the poor, the noble and the ignoble,

the wise and the unwise; all classes and conditions of people where human suffering is found.

A large part of the lives of these faithful men is spent in the midst of human suffering, in the atmosphere of sorrow and anxiety. They are expected to be cheerful when others are sad; they are expected to be strong and courageous and hopeful when others are in despair; their ministrations teach light at every point; they are present at the beginning of life, and their ministrations close only when life closes. Surely God's blessing should rest upon a philanthropy so noble, and ministrations and devotion and benevolence so God-like.

Let Thy blessing rest upon this Association. May the Peace of God be there. Bless their absent homes and families, and keep them, we beseech Thee, from harm, in the name of Thy Son, who taught us to pray:

"Our Father, Who art in Heaven, hallowed be Thy Name; Thy kingdom come; Thy will be done on earth as it is in heaven. Give us this day our daily bread, and forgive us our trespasses as we forgive those who trespass against us. Lead us not into temptation, but deliver us from evil; for Thine is the kingdom and the power and the glory, forever.

Amen."

Dr. Miller: Rock Hill extends a welcome to the physicians through her mayor, Hon. C. W. F. Spencer.

Hon. C. W. F. Spencer: Mr. President, and Members of the South Carolina Medical Association:

I have the honor and pleasure, on behalf of our people, of extending to you a glad and cordial welcome to our City. It is a pleasure, because I am conscious of the great delight given on all sides by reason of your determination to make Rock Hill your convention city for 1913, and it is an honor to be accorded the privilege of extending this welcome to the medical fraternity of South Carolina. Rock Hill having thus been happily chosen your meeting place, I cherish the fond hope that nothing will be left undone by our people here to evidence our genuine appreciation of the fact that you are here today; and furthermore, gentlemen, that you will experience comfort, satisfaction and pleasure as our guests. We fully realize the great benefit to be derived from your presence here. The physician is very close to the hearts of the people

they serve. Confidence is felt in him, and attention is paid to the words he speaks; and so I know, gentlemen, the closest attention will be paid to what you say and all the suggestions that you throw out will be read with the deepest interest.

To discontinue the pursuit of your calling and leave to others the care and attention of your patients, in order that you may assemble thus and deliberate, is done at great sacrifice, but we who are to benefit thereby will gain far more than you will lose.

A convention of physicians and surgeons is peculiarly productive of good. When lawyers assemble they deliberate upon questions affecting personal and property rights and remedial measures.

When doctors convene they have as their object the upbuilding of the body and the preservation of human life, by the application of scientific remedies.

In these modern times each year seems replete with many wonderful discoveries. I have even heard of the restoration of the hardened arteries and the prolongation of human life by the use of radium. I understand that a very small quantity placed in the bottom of a glass bottle furnishes an almost inexhaustible supply of this elixir of life. I marvel at the possibilities of Dr. Freidmann's anti-toxin for tuberculosis. These remedies mean far more to the layman than the effect of the Webb law recently enacted by Congress.

I read a short time ago of a mayor of a Western city who attained great eminence and popularity by the innovation of excepting from arrest all delegates who attended conventions in his city. The physicians of the state decided that they would meet there. All attended. In a distant town a citizen unfortunately fell ill. No physician could be found. His friends and his relatives hunted far and wide, but no doctor could be found. He was very ill, but the story runs that he soon got well! Now, in these modern times, that would not be the case. This occurred in the wild and wooly West.

Gentlemen, we know that deliberations and the various subject matters which you intend to consider will consume all of your time and attention. We haven't many attractions here to offer you, but we have one institution in our City of which we are very proud: I refer you to Winthrop College. I hope that you gentlemen will all visit Winthrop College while you are here, and that you will make friends with that institution. Winthrop College is in the State; Winthrop

College is in the South. You gentlemen doubtless have sisters or daughters who attend that College. We know that Winthrop College will be greater still, with your friendship and your cooperation.

I told a friend of mine the other day that I contemplated having the pleasure of making an address of welcome to a convention of physicians and surgeons here, and asked him if he had any suggestions to make. (He is a very versatile speaker). He said, "Why, that is a very easy matter. You are going to address doctors?" I said "Yes. "Well," he said, "just tell the doctors something about the love and affection of the ladies for them, and what you say make it very short. I know doctors. They have lots of patience with their patients, but they haven't a bit with a lawyer."

(Applause.)

Now, Mr. President and gentlemen, I know you have much to do this morning. I am not going to take up any more of your time. On behalf of our men, on behalf of our ladies, whose pleasure it will be to tender you a banquet to-night, on behalf of Winthrop College, I extend to you all a glad and cordial welcome to our city.

(Applause.)

The President: Gentlemen, I have the pleasure of introducing to you Dr. E. W. Pressley, on behalf of the York County Medical Society.

Dr. Pressley: Mr. President, gentlemen of the South Carolina Medical Association, neighbors, friends, for such I regard you: It is always pleasing to have sojourning with us people who are cultured, affable and educated, for association with such people is both pleasing and profitable; hence we are always glad to see them for what they are and for what their attainments are. It is not, however, for these reasons merely that we welcome this body to-day; in fact, it is not for these reasons mainly that we welcome you. We welcome you to-day mainly for what you represent, for the importance of the work in which you are engaged, and for the magnitude of the interests that are bound up in that work. You represent that conflict as old as mankind between the forces that make for life and its integrity and the forces that make for destruction and death. To you as representatives of the medical profession are committed the health, the lives, and, in a large measure the happiness of the people of this country; and to you, in a peculiarly close and confidential sense, is committed this country's most priceless possession in

the present, and its greatest asset, physically speaking, for the future; for the greatest asset of this country and this people is not our very material resources; not our trans-continental railway systems linking state to state and ocean to ocean with joint triple bands of steel; not our trans-Isthmian canal giving passage to the world's commerce; not our teeming cities with their architectural triumphs; not even our mines and factories. If disaster of war, of calamity, of nature should sweep these from our land the industry of future generations could replace them. Nor is our greatest asset our fields, clothed with waving grain or white with billowy cotton; nor yet our cattle upon a thousand hills; for if floods and streams lay waste our fields and the locusts and caterpillars bare our forests, under a new cultivation they would grow green again and ripen to future harvests. All these might be replaced. Not any of these, not all of these combined make up this country's greatest physical asset. The greatest asset of this country, physically speaking, is the health, the vitality, the stamina—the health of the rising generation. Preserve this, increase this, and we will be able to develop to the full all these wonderful resources with which bountiful nature has so lavishly blessed this favored land. Allow this to be lost and of what avail are all these resources? Who, then, will man our magnificent railway trains? Who, then, will guard our ships along the highways of the deep? Who, then, will rear our magnificent cities, and who will dig and delve in our mines and toil in our shops and mills? Who will cope from bountiful nature harvests so large as to feed the hunger of a world if this asset is impaired or lost, and "Ichabod" can well be written upon the capital of Washington, for indeed glory will have departed from our land and we will go forward to weep in the dawn of that day over the fact that ever we permitted to be squandered the magnificent health and vitality bequeathed to us by our pioneer ancestors.'

How then should it heighten in your own mind the sense of your obligations, and how should it heighten in the minds of others a sense of the importance of your work when it is realized that upon you, under God, rests a question almost wholly whether the rising generation shall become what they were intended to be or shall shrivel and warp and die.

So I say we welcome you to-day mainly for what you represent, and we esteem you

most highly for the very work's sake. And the welcome which we bring to you to-day is from every class and condition of our county. Aye, from the cold silence of the voiceless tombs where sleep the mighty dead of the profession in our County, awaiting the trump of the resurrection morn I bring you the greetings of their spirit and the force of their example. Barron, Bratton, the Campbells, Hope, Jackson, Lindsey and others of you, so many and so faithful to your duty as God gave you to see that duty, from your frail tenements of clay, your spirits long divorced are here today. Daily the tides of death go eddying and flowing beside your long resting places. Thousands of throbbing hearts there are—but yours are at rest; and forever thousands of toiling hands—but yours have ceased from labor. Thousands of weary feet, but yours have completed their journey.

"Patres Amati te Salutamus."

And if my friends in their life had their bickerings, contentions and strivings, then we must remember that they were human and had the same failings that we have, and were all the more loved on that account, and from out their tombs to-day a solemn echo seems to cry:

"Here let their discords with them die,
 Speak not for those a separate doom,
Whom fate made brothers in the tomb,
 But search the ranks of living men
Where will you find their like again?"

Again I bring you welcome from the general citizenship of the County. Our citizenship is composed largely of the descendants of Scotch Irish emigrants of two centuries ago, and possessing still all those sturdy virtues that have always characterized that people and have made them the supporters of civil and religious liberty from the days of Oliver Cromwell until now. (That is, of their own!) They have not always been so careful about the liberty of other people.

In addition to these virtues they possess as well those gentler feelings that fill the mind and heart.

From the daughters and sisters, from the sweethearts and near-sisters of this citizenship I bring you welcome.

"For Heaven's best gift to man is ours.
 God bless our rosy girls;
Like sylvan flowers they sweetly shine,
 Their hearts are pure as pearls."

And they possess not alone those graces

whose magic sway is everywhere acknowledged and whose fading character is universally lamented: "The lily's hue, the rose's dye, the kindling lustre of an eye," but they possess as well and in quantities measureless as the waters of old ocean those other and abiding charms:

"The tender thrill, the pitying tear,
 The generous purpose nobly dear;
The gentle look that rage disarms
 These are their immortal charms."

With a courage which no imminence of danger has ever *blended*; with a love that no plumbit has ever fathomed; with a faith in herself and her God that no political or economic convulsion has ever shaken, the women of York to-day, as their mothers have done before them, face the trials of the present and the problems of the future serene and unafraid.

(Applause.)

And from these women, any one of whom is worthy to stand up and be measured by the side of that proudest of Rome's proud matrons, the mother of the Gracchi, I bring you such welcome as you don't often get.

(Applause.)

Permit me to say that by its hallowed memories and traditions of the past, by all its labors and efforts in the present, and by all its hopes and aspirations for the future, we give you welcome. We give you welcome.

(Applause.)

The President: As the President of the South Carolina Medical Association it gives me great pleasure, in the name of the Association, to thank Dr. Pressley and the mayor of your city for the pleasant and warm greeting that you have given us, and to express the great pleasure it has given us to meet here, and we thank the mayor and Dr. Pressley and the citizens of Rock Hill for the pleasure that we have had in our stay here.

The next feature on the program is the President's address, which I have prepared to be read at this meeting.

(Published in April Journal, Ed.)

Gentleman, we have with us this morning one of our friends from Virginia, who has accepted an invitation to give us a paper on the subject of his selection.

The Doctor's paper is so broad in its scope that we had hoped a large portion of the public and of your largest school here—the young ladies' school—would have the benefit, and, with the Chairman of the Local Committee I made an effort,

through the president, to secure the auditorium at Winthrop College, but Dr. Johnson, the President, took us over the building and showed us that the auditorium was undergoing repairs and that it was not practical to meet this morning in that auditorium.

I have the honor, therefore, to introduce to you my friend and our friend, Dr. J. Allison Hodges of Richmond.

(Applause.)

Dr. Hodges: Mr. President, your closing words remind me that your folks, and your folks' folks are my folks, and I am happy to be here, and feel at home with you today. Coming originally as I do from North Carolina, having before had the pleasure of attending one of these Associations, I concluded today to follow the line of suggestion as mentioned by your President, and not read some technical paper that might show my presumption or in all probability be more of a show paper than a paper of utility to you and yours, and so I have come, not to say

anything new at all, to scarcely advance a new truth, and yet I hope to make suggestive to you and worthy of daily application, some thoughts that may advance the best interests of this profession, which are as dear to your hearts as to mine; for I am but a simple physician, feeling that there are numbers,—large numbers—already of surgeons who are fully abreast of the times and who are competent to fulfil its every necessity, but feeling that there is a lack of old time physicians, if you please, who feel an interest not alone in the specialties that they have made their own, but feel an interest in the common brotherhood and citizenship of their country, and will do all in their power for the advancement of its best interests.

(Dr. Hodges' paper appears in this issue of Journal, Ed.)

Upon motion a rising vote of thanks was extended to Dr. Hodges for his most excellent address.

(Minutes to be continued.)

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EDITORIAL

SCHOOL HYGIENE CONGRESS.

THE Fourth International Congress on School Hygiene, Buffalo, N. Y., August 25th to 30th, came fully up to the expectations of those who planned it. The attendance was well beyond two thousand. Almost the entire civilized world sent delegates. The personnel of the gathering was of a very high order, and there was a singleness of purpose seldom witnessed in so large a gathering of intellectual people. It was clear that everywhere the time has come for the child to have a better chance for a healthy, happy existence than has hitherto been the case. It was clear that the problem of the child is the problem of the masses guided by ex-

perts in many lines of thought and activity.

The medical man has a very important position in this march of progress but not necessarily the most important. The dentist, the clergyman, the lawyer, the sanitarian, the sanitary engineer, the architect, the pure food expert, the manufacturer of wearing apparel, the psychologist, the all around school teacher and many others in the light of this great congress are bound to lend a hand if the child of the future receives his just dues.

The Secretary of the Congress and the man who perhaps deserves the greatest credit for the success of the undertaking is a medical man, Dr. Storey, of New York City, and no

one is more competent to fill such an executive function than the right sort of physician.

In brief some of the conclusions of the meeting were as follows: Medical Inspection of Schools continues to deserve further extension, especially ally in the rural districts. A notable success in the latter was shown to have occurred in Pennsylvania, and New York has plans on foot which promises much since the recent state wide law was enacted. From Great Britian came the announcement that now all public health activities revolve around their Medical Inspection of schools law. The question of teaching sex hygiene excited the keenest interest. One point appeared to be settled, viz: that it is imperative that the school child be taught sex hygiene, but just where and by whom was not definitely brought out. Eugenics in its broad sense received serious consideration. The mentally defective child evidently is rightfully claiming the attention of the trained physician-teacher-psychologist, and with hopeful assurances of success. Perhaps the subject of oral hygiene never before secured so brilliant an opportunity to impress its importance upon the real thinkers of the child world. An entire evening was given over to this one subject. In this connection we wish to call attention to the G. S. F. Wright Memorial Oral Hygiene Medal designed by the South Carolina Dental Association and given by the individual members to the schools of this State. We suggest that the physicians or every community co-operate with the dentists in this beneficent factor in

preventive medicine.

The matter of better instruction of the child in his efforts at play is growing in interest. This means more play grounds and probably unloading the curricula of all our schools. From Germany came the information that recent laws require a fifteen minutes recess in every hour of study.

Ventilation of school buildings appeared to be a very difficult problem to solve indeed. It was a common observation that all systems failed unless properly supervised and that the day of the trained, competent, well-paid janitor is at hand if the school child secures the fresh air nature intended he should have.

A step forward we believe was taken when the Congress emphasized the necessity for the effective teaching of hygiene in the Colleges and Universities of the country,— and that thus these institutions should become centers from which the people may see the light on hygienic thought and living. Some of the Universities reported not only active standing committees for the faculty on health matters but student boards of health which health agencies enter into active co-operation with the citizens where the schools are located and now it is proposed to extend this sphere of influence beyond the borders of the local surroundings, as is done in other lines of extension work.

The transactions of this Congress should prove to be an invaluable volume of authoritative information to all students of child welfare.

The next Congress will convene in Brussels four years hence.

ORIGINAL ARTICLES

SOME OF THE CAUSES OF HIGH INFANT MORTALITY AND HOW IT MAY BE REDUCED.

*By William Weston, M. D. Columbia, S. C.

I HAVE selected this subject because, to many of the profession its progress in recent years has not been so accurately followed as have been many of the better known fields of practice, and for the better reason that in early life are really found the brilliant opportunities for carrying out the chief objects of our endeavor, the preservation of life, the relief and prevention of suffering, and by so conserving the strength and developing the resources of the individual that through life he may contribute to the welfare and constructive evolution of society. In order that these objects be fostered and to a great extent attained it is necessary to investigate the causes that interfere and obstruct the normal well-being of children during their infancy.

In studying the mortality tables of early life one is impressed with the tremendous role that disorders of nutrition play in that period of greatest anxiety, the first two years of life. In order to arrive at a comprehensive basis upon which mortality may be reduced, it is necessary to possess as clearly as possible a knowledge of the underlying causes of these disorders.

It is a well established fact that

in this section of the country the diarrheal diseases accounts for about sixty per cent. of the deaths occurring in infants under two years of age. That these diseases are more frequent in the warm months is also well known, though they are by no means absent during the other months.

By far the greatest number of these cases occur in bottle fed babies.

Davis in a very interesting article appearing in a recent issue of the American Journal of Diseases of Children in laying stress upon the unnecessary bottle feeding so prevalent now, illustrates the position of the profession by relating the interesting fact that during the siege of Paris in 1870-71 when the milk supply failed, the Parisian women nursed their babies, and the infant mortality rate fell from 330 to 170 per thousand births. Another interesting quotation from the same article referred to shows an analysis of 13,952 children born in Baudeloque's clinic showing an infant mortality of fourteen per cent. for the breast fed, thirty-one per cent for those who were bottle fed by their own mothers, and fifty per cent. for those who were bottle fed by strangers. I feel sure that the above quotations express most conservatively a world wide condition and experience.

We are all well aware that it is not considered fashionable for mothers to nurse their babies, and among the well-to-do and cultured it is almost the exception to find a mother that does so willingly and cheerfully. There is a wide spread fallacy that there are many mothers that really

*Read before the South Carolina Medical Association, Rock Hill, S. C., April 16, 1913.

cannot nurse their babies, and just as many, or probably more who believe that their milk rapidly fails after about the third month. Dr. Jacobi, who has for so many years been prominent in our profession, and who is one of the most prominent pediatricists in the country says: "One hundred per cent. of our women can be made to nurse even the 'flower and fashion' of the land."

I feel sure that if we candidly relate the real facts to mothers, and preach the life saving doctrine of "back to nature" with true and not poetic meaning, we will be taking a decidedly progressive step towards accomplishing our chief ideals.

There are, however, a certain number of cases that for some good reason it may not be either possible or advisable for the mother to nurse her baby at all, and in these cases it is necessary to prescribe a substitute. It is needless to tell you that the proper substitute is milk from a wet nurse, if possible. This substitute has until quite recently fallen into disrepute for several reasons, among them its expense, and the trouble it causes the household, but chiefly due to certain fallacies that even the profession too, often accepts as facts. These are, that the baby of the wet nurse should be the same age as the baby for whom milk is desired; that the wet nurse should be a woman of immaculate character, and of gentle, even temperament. While these latter two qualities are desirable, they are not necessary since the baby will not develop either immorality or bad temper from a wet nurse. In selecting a wet nurse the only consideration should be that she is clean, in good health, and that she be well and carefully fed, and give sufficient milk of good quality.

Should it be found impractical to

get a wet nurse, then it is our duty to select some other food. Experience gathered from all over the world should convince us that cow's milk is the most convenient, as well as the most suitable substitute for mother's milk, and upon our knowledge of the fundamental principles of infant feeding will depend our success. There are certain landmarks that I will rapidly review as they are essential. The milk must be pure, and in warm weather in order to be sure of purity, it will be advisable to either sterilize or pasteurize the milk. Milk from a mixed herd is better than from one cow. If, however, only one cow is available, she should be a common or grade cow or Holstein, but never a Jersey. The age of the calf is a matter of indifference. In preparing your modification it is safe to start with a low percentage of fat and sugar, and gradually increase both. It is probable that if the food disagrees with the baby the sugar is at fault. In this case, change the kind of sugar, either cane, or some convenient form of malt sugar, assuming that milk sugar was being used.

I would advise against the use of any of the many much advertised proprietary infant foods, unless as a temporary expedient. This advice is not given in a spirit of prejudice, but for many good reasons.

We do not usually see these feeding cases until the advice of all the women of the community has been sought, and generally taken, and by this time the baby is sick—probably very sick. It is in these cases that we are called upon to exercise all the resources at our command. Of course when such a child is seen it is necessary to stop all food, empty the stomach and bowels, then give sterile water for a time, followed by motn-

er's milk or albumin milk. In case albumin milk should be decided upon commence with it made up from skimmed milk, especially if the baby has been vomiting much. When the child becomes accustomed to this make it with whole milk. The strength of this food can be gradually raised by adding some form or malt sugar in increasing quantities. When the stools have become normal and have remained so for ten days or two weeks, we may safely put the baby on milk formula, observing the precaution already mentioned.

Do not forget that a baby requires less food in warm than in cold weather, but more water.

The next greatest source of infant mortality is the infectious diseases, which I shall very briefly consider under two classes: *First*—The specific infectious diseases that are contagious, scarlet fever, measles, smallpox, whooping-cough, and diphtheria. In all of these diseases the mortality rate is especially high under three years of age, and, therefore, the strictest precautions should be taken to prevent them. It is almost criminal negligence not to vaccinate a baby in very early life. In none of these diseases is there any specific treatment except diphtheria, although there is a strong probability that there will be in the near future, since it is claimed that the specific causative agent of whooping-cough, measles, and scarlatina have been found. At this time it is our duty to isolate each case of either of the diseases where there are young infants that might become infected and carry out every measure of prophylaxis. We should never go from a patient suffering with one of these diseases to a house where there is an infant until we have changed clothing and disinfected our hands.

The chief points to keep in mind in regard to preventing the spread of these diseases and saving life are in scarlet fever, isolate, is most contagious during desquamation, therefore use antiseptic baths and unctious, disinfect excreta. Be on the lookout for otitis and nephritis. Because of the frequency of the latter disease as a complication, insist upon milk diet and abundance of water as cardinal measures of treatment. In measles, isolate, keep in bed in a dark but well ventilated room. The pulmonary complications, especially broncho-pneumonia, are the chief causes of serious illness and death in this disease. In whooping-cough which is very fatal in infants under two years of age, isolate from infants, and can be on the lookout for broncho-pneumonia, diarrheal diseases and convulsions. It is most important that we do our utmost to control the severity and frequency of paroxysms. This can best be accomplished by strict attention to diet and by a discreet use of antipyrine and bromide of soda.

In regard to diphtheria, despite the great progress which has been made in its diagnosis and treatment, there is still much to be desired. I desire to speak to you of two of the types, one because of its danger to the individual patient and the other, because it is so often overlooked and is therefore a frequent means of spreading the contagion. The first is the laryngeal type characterized by hoarse cough and voice, with gradually increasing stridor and increasing dyspnea. The progress of this type is often so rapid, unless quickly relieved by large doses of antitoxin and intubation death ensues in the course of 36 to 48 hours. Of the other—the nasal—the constitutional symptoms may be very slight, and

the only condition observed is a persistent serious, purulent, frothy or bloody discharge from the nose. In regard to the treatment of diphtheria, which for some time was the subject of much intemperate debate as to the quantity of antitoxin to be used, I think there no longer remains doubt among those who have honestly tried all with the one object in view to learn the truth, and find the method of curing the greatest number of cases, and the verdict is prompt and large doses of antitoxin regardless of the age of the patient, repeated from four to six hour intervals until both the constitutional and local symptoms improve and the patient is convalescent.

The only other disease that time permits me to mention, is malaria, the curse of the South, and like the poor, always with us. The mortality rate from this easily preventable disease in infants and young children is very high, and those who survive the immediate dangers of the disease are often obliged to undergo a long and trying season of debility before good health is established. It is a well known fact that children suffering from malaria offer but feeble resistance to intercurrent diseases. It is almost unnecessary to even mention the fact that while quinine is in many cases a specific for malaria it often fails in young children, and is badly borne by children, especially for any considerable length of time. Consequently I would urge you if resident in a malarial district, especially if there is a case near at hand to keep the child protected from mosquitoes. The time is near at hand when the dictates of conscience must force the public to as efficiently screen a case of malaria as a case of yellow fever. When this is thoroughly done and malaria is eradicated,

ed, as it will be, the South will contain a population more numerous, larger in stature with greater physical strength and mental capacity, and can then grasp with intelligence and power the many serious problems that confront her, and solve them in that spirit of justice and fairness which alone can bring permanent prosperity, stability and happiness.

DISCUSSION

DR. HINES, Seneca, S. C.—Mr. President, I would like to discuss this paper just a moment.

Dr. Weston has brought out two points. In one he has quoted the eminent Dr. Jacobi in his Presidential Address at Atlantic City last year, in which he said that 100 per cent. of our women are able to nurse their infants. He meant, of course, healthy women.

The other point is this: That the wet nurse has not been given credit for her usefulness, not only in the rearing of healthy infants, but in the treatment of diseased infants.

I have in mind a case of a diseased infant, in which six different wet nurses were utilized in the treatment of this particular case by the physician in charge, and the infant's life was saved, I am sure.

In my own practice I have, on repeated occasions, utilized two or three different wet nurses, and I believe the infants' lives were saved.

It is a very difficult matter to control the wet nurse situation. We do not try, I believe, to the very best of our ability to control it.

So I take it, if we gather nothing else from Dr. Weston's paper than these two points we shall have learned much. I do not fail myself to preach this important doctrine in every home in which I go. And then again, I make every effort to utilize the wet nurse, not only in the rearing of healthy infants, but in the treatment of diseased ones.

DR. BOYD, Columbia, S. C.—Along the line of nursing children by the mothers, I agree with Dr. Hines that perhaps we, the members of the medical profession, are responsible, to some degree, for the carelessness and the lack of desire on the part of the mothers to nurse their children.

As we know, a large number of the women of the cultured and of the highest order of life are opposed and do not care to bother with the nursing of their own children for personal reasons; perhaps, in large measure, for fear that their figure might be ruined; and a large number of us are willing to allow that condition to exist rather than to point out to those mothers that it is a duty that they owe the child they have brought into this world, and that it is not a disgrace to nurse a baby; and yet a large number will allow that condition to exist, and aid in increasing infant mortality by prescribing and advising the use, perhaps, of proprietary infant foods.

Now along the lines of infectious diseases a point that has been well brought out by Dr. Weston, and a condition that has not been appreciated, to my mind, by the medical profession; having been interested for a few years in public health work, it has been brought to my notice time and again that some of our leading physicians oppose quarantine measures for whooping-cough, for measles, etc. Because they are such mild diseases. To my mind there is no more dread disease for children than whooping-cough. Measles is not the mild disease that these people consider it. I have been called upon to prepare charts of death for the city that I represent—the health department—and it has been brought to my mind forcibly that frequently the physicians who state that they consider measles a mild proposition are called upon to sign death certificates of children for bronchial pneumonia and for enteritis, while the primary cause, measles or pertussis, is not mentioned. If these children had not had measles or pertussis, it is possible, perhaps, that those children would have been here and no death certificate would have been signed.

DR. THEODORE MADDOX, Union, S. C.—These proprietary products have a reason for existing which the Doctor states—and that is, because we use them; but if we did not use them they would not be.

We must go back to the fountain head and realize the fact that it is in our teaching. When I was in the medical school there was very little *materia medica*, very little dietetics. Somehow we expect men turned out of the medical schools to take up something that we know nothing about, and the proprietary dealer sends his men around and gives you the enormous amount of good that this food can do for the child,

etc. Hence, he takes it up and becomes an advocate for the proprietary products. He recommends it to his patients and the ladies around in the community find out what they are, and consequently many babies become in a serious state by these practices which we ourselves are responsible for.

Now the question brought out in this paper is good: How can we overcome these things? How we will arrange our affairs in regard to not only proprietary products in these medicines and foods which are not half so good as even cow's milk. What are we going to do to overcome that sentiment?

DR. ADAMS HAYNE, Columbia, S. C.—I would just like to state, in regard to measles being regarded as a minor dispensation of Providence, to keep children out of school when they do not want to go (as I regarded it when I had it) that the statistics just published by the Public Health Service shows that 1,100,000 children in the United States had measles, and of that number 11,000 died.

DR. DURHAM, Columbia, S. C.—I think that we have overlooked malaria being as fatal to children as it has. I know when I used to practice medicine in the upper part of the State often if a child had scarlet fever or diphtheria the parents would get scared, but sometimes they would come and say, "Doctor, I wish you would come and see my child to-day. You need not be in a hurry. It is just a little malaria" And I think I lost more children from malaria than from any other cause.

URETERAL CALCULUS.

*By A. B. Knowlton, M. D., Columbia, S. C.

THE subject of calculus of the ureter has come to occupy such an important position in the field of Urology that I deem its presence upon your program as entirely justifiable and in accord with the progressive spirit of this association.

It is no longer sufficient to make the pronouncement upon a man that he has trouble of some sort somewhere in the urinary tract. He

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wants to know positively (and there are a plenty of people who can tell him) just where that trouble is and the nature of it. If the trouble is ureteral calculus, how many calculi are there? What is their exact location? Is one or both ureters involved? And what operation, if any, is necessary in order to give him complete relief?

The victim of ureteral calculus may suffer little or none for years at a time, or his life may become absolutely worthless through oft recurring or continuous pain. When the stone is high up the pain may be in the back or loin, when it is in the middle or lower third of the ureter the pain will be near the right or left McBurney point, in which case the overlying muscles may be as tense as in acute appendicitis. The pain is frequently reflected to the end of the penis or down the thigh of the affected side. When the calculus is within two inches of the bladder wall or when in the vesical wall itself the pain may be most agonizing either upon the bladder becoming distended, or in the act of urination pain is undoubtedly the symptom of primary diagnostic importance and value and as in other tubal and obstructive conditions of the body comes promptly to the front to announce the *fact* and *location* of trouble ahead. Pus or blood or both are found in the urine, in most cases, unless the stone is thoroughly encysted in the mucosa and thereby prevented from maintaining active irritation. It is extremely necessary that microscopic examination of the urine should be made prior to any cystoscopic or other instrumentation whatsoever.

If calculi are co-existent in both ureters, complete urinary blockage may occur bringing on the condition known as calculus anuria. In this

condition the urine is dammed back into the kidney pelvis and the upper ureteral tracts, and so markedly simulates complete urinary suppression that this diagnosis may be readily made and the patient may be placed upon drugs instead of upon the operating table. Such an error would be justifiable *only* in the absence of diagnostic apparatus. The condition is one of strict surgical emergency, and removal of the obstructing calculi alone can save the patient. It must not be lost sight of that while pus, blood and pain are the *ordinary* symptoms of ureteral calculus, there is another set of symptoms much more cumulative in their nature which not only declare the probable presence of ureteral stone, but which denote advanced pathology which has resulted as a direct effect of stone irritation or calculus obstruction, viz: hydro and pyo-ureter, pyelitis, hydro-nephrosis and pyo-nephrosis with all their accompanying phenomena of lumbar distension and pain, chills, fever, sweats, hectic and kidney destruction.

It is impossible without the aid of the cystoscope, the microscope, the ureteral catheter, and the X-ray to diagnose and locate stone in the ureter. There are cases which can be diagnosed by the X-ray alone. There are cases which on account of the composition or smallness of the stone do not cast a shadow and therefore are not diagnosed by the X-ray, and there are cases in which calcified glands or phleboliths cast shadows so similar to those of stone that the X-ray cannot distinguish between them—these are better diagnosed and located by the cystoscope and ureteral catheter. The best results are of course obtained by the team-work of the X-ray, cystoscope and ureteral catheter.

Ureteral calculi becomes lodged, usually, in one of three locations, either where the kidney pelvis narrows into the ureteral canal, or where the ureter curves abruptly over the iliac vessels, or where the lower end enters the muscular wall of the bladder.

In selecting a suitable cystoscope for calculous diagnosis, I would unquestionably choose the instrument giving the direct view, that is the instrument without the lens. The objection to the lens is that it must be held at a constant distance from the bladder wall (or be focussed) in order to distinguish anything at all. The process of "focussing" is constantly being interrupted and disturbed by the patient's movements, by his respiratory act, and by the movements of the examiner himself. The advantage of the direct view is that a larger field of the bladder wall can be seen at one time, the movements of the patient and the operator do not interfere with accurate vision and the ordeal of "focussing" is entirely dispensed with. In fact, the direct view uncomplicated cystoscope will be found *decidedly* more satisfactory in actual practice than the lens system.

It is very generally conceived that the use of the cystoscope and the passage of the ureteral catheters is rather difficult—quite the contrary. Unless there is urethral stricture (and this need not be considered in the female) it only requires two to five minutes to locate and insert both ureteral catheters. Identically the same instrument is used for both sexes and save for urethral stricture the same process is about as easy in the male as it is in the female. The condition most difficult of differentiation from calculus is the presence of one or more calcified lymphatic

glands or pelvic phleboliths. These bodies are usually found in close juxtaposition to the ureter and within four inches of the lower end. Other conditions offering difficult differentiation are small calculi imbedded in the wall of the bladder itself and spermatic calculi imbedded in the seminal vesicles. The best means of distinguishing between any of these and ureteral calculi is to pass the metallic stylet into the ureter and obtain a radiogram with the stylet still in position. The ureteral calculi will appear as beads strung along the stylet, while calcified lymphatics, phleboliths, vesicle and spermatic calculi will appear at varying distances from the shadow of the stylet. In passing the metallic stylet I have adopted the following method as the one least likely to injure the ureter: first pass the ureteral catheter, and then pass the stylet into it, by which means the catheter acts as a guide to the stylet and a protection to the delicate ureteral mucosa.

It must never be lost sight of that the symptoms of right ureteral calculus may so closely simulate those of acute appendicitis that the differentiation may be difficult in the extreme. Right-sided rigidity, temperature, high leucocytosis, nausea and all the prominent symptoms may be identical. I operated upon a young woman eight years ago for acute appendicitis and removed an appendix that was entirely harmless in appearance and not at all in accord with the severity of the symptoms for which operation was done. This patient continued to suffer from time to time till last year when she returned with an acute exacerbation in which I discovered and removed a low calculus as large as an almond seed. In addition, I have operated for right-sided ureteral stone in three cases

which other surgeons had operated upon for appendicitis without giving relief from symptoms. I have mentioned my own error in these instances, *first*, in order that I may not appear to be desirous of reflecting upon other surgeons.

It is undoubtedly true that the presence of ureteral calculus produces a reddened congested and pouting condition of the intra-vesical ureteral orifice. In my cases this has been so noticeably true that I am nearly always able to predict the ureter involved by the appearance of the stoma alone. I believe too that the nearer the calculus to the stoma the more congested and pouting its condition.

In regard to operation, the lumbiliac incision is undoubtedly the proper method of approach as it gives ready access to two-thirds of the entire ureter and makes the operation entirely extraperitoneal. For calculi situated within three inches of the bladder or within the bladder wall, I unquestionably prefer the suprapubic median incision. By this route both ureters, the bladder wall and the seminal vesicles may all be thoroughly explored while the Trendelenburg's position keeps the intestines entirely free of intestinal interference. The only possible objection to this incision is the fact that it exposes the patient to possible abdominal infection, but with the present-day facility in handling peritoneal sepsis, I believe that the advantage gained in increased accessibility far outweighs the slightly enhanced micro-organic danger. By this route it is necessary to open not only the anterior peritoneum but the posterior peritoneum, making this a trans-peritoneal procedure; in the female this is offset by the ready drainage which may be secured by a stab

wound through the vaginal vault. There are two precautions which should be borne in mind whether the operation is done extra or trans-peritoneally, first, in searching for the ureter it *will always be found posterior to the posterior peritoneum and in immediate contact therewith*—in fact, when the peritoneum is dissected and lifted from the posterior abdominal wall, the ureter is lifted with it. The remaining precaution is this: never leave a piece of gauze in contact with an opening made in the ureter *unless you expect a urinary fistula to follow*. An incision made into a ureter will almost always heal, *and without fistula*, provided the condition of the urine is normal and provided gauze is *not* left in contact with the ureteral incision. Even in cases when on account of septic urine one *expects* a urinary fistula, the probability of having one is *much* diminished if gauze is kept away from the incision. Unless there has been considerable trauma associated with a very septic urine, ureteral incisions will heal promptly. But trauma *must* be avoided in order to preserve the net work of blood vessels which immediately surround the ureter. It has been demonstrated that this vascular network is sufficient to preserve the vitality of the ureter even if the latter is lifted entirely from its bed, all the way from the pelvis of the kidney to the bladder.

CASE 1.

A woman 32 years old was referred to me with a collection of pus in the right kidney. She had been operated upon six months previously for the same condition by an eminent New York surgeon who drained the kidney, and from which operation the patient made a rapid recovery. When the patient came to me she was suffering identically as she had

suffered previous to the operation in New York, viz, chills, fever, sweats, a swelling in the right kidney region, great tenderness over the right side of the abdomen and periods of spasmodic pain deep in the right groin. The effort to urinate was accompanied by marked and almost unendurable pain. Microscope showed leucocytes 36000 and no malaria plasmodia; Cystoscope showed a congested and pouting ureteral orifice and neither the ureteral catheter nor the metallic stylet could be passed more than an inch into the right ureter when they would meet with definite obstruction. Radiogram showed a dark shadow about the size of a small thimble corresponding in position with obstruction detected by the ureteral catheter and stylet. The diagnosis reached was calculus of the right ureter, situated near the bladder and obstructing the urinary flow and resulting in a hydro-pyo-nephrosis. On account of the low position of the stone, operation was done through a median supra-pubic incision. The right ureter was distended to the size of a man's wrist being quite as large as the colon. The intestines were packed back, the ureter aspirated, draining the entire contents of the kidney and upper ureter through the pelvis. The ureter was then incised and the calculus, as large as an ordinary thimble, removed. Retro-grade catheterization was then done to demonstrate the patency of the ureter before the site of the stone. Several days after the operation, it was necessary to incise the vaginal vault to liberate a small accumulation of pus. The patient made an excellent recovery without urinary fistula, and she informs me that when in New York she had neither a cystoscopic nor a radiographic investigation. Is it not evident that the original source of

this woman's trouble was the stone in the ureter, and that failure to make this diagnosis prior to her first operation was the cause of her relapse and second operation?

CASE II.

A woman 30 years of age came to me complaining of marked pain during the act of urination. As soon as the act was completed her pain ceased and she had no more pain till the act was repeated. There was no pain even when the bladder was distended with urine. Microscopic examination showed no blood but a slight amount of pus. The cystoscope revealed a calculus lodged in the lower end of the right ureter and projecting into the bladder. Repeated efforts to dislodge it through the bladder failed completely, therefore, a supra-pubic median incision was made, the ureter incised and the stone dislodged by passing a probe down the ureter retrograde.

CASE III.

It is an indisputable fact that the diagnosis of ureteral calculus and the promise of a satisfactory operation on the morrow may both be dissipated by the successful passage of the stone during the night. This has occurred three times in my practice—twice the stone was voided into the chamber in time to forestall the approaching operation, and once it passed into the bladder but not sufficiently soon to avoid a useless surgical procedure. This, however, is a rare occurrence, and to wait deliberately for this happy solution of so serious a disability is to invite serious infection and kidney damage. A man 45 years old was referred to me by Dr. Gantt, of Jefferson. He had been suffering from periodic attacks of pain in the right side accompanied by marked pain in the glans

penis. The microscope showed pus and blood. Radiogram showed several shadows apparently in the right ureter. About three hours after the radiogram was made the patient was anaesthetized and bilateral ureteral catheterism done which showed both pus and blood in the right ureter and normal urine from the left ureter. Immediately after withdrawing the catheters, two calculi were observed through the cystoscope resting on the floor of the bladder. Not suspecting that these may have been the calculi shown by the radiogram to have been in the ureter, the patient was next morning subjected to median suprapubic incision. Palpation of both ureters demonstrated them to be without calculus. The patient's subsequent history shows that he has been completely relieved, there can be no doubt, therefore, that under the relaxing influence of the anaesthetic the calculi followed the ureteral catheter down the canal and into the bladder. This case would seem to suggest that the X-ray examination should have been made after the cystoscopic—in fact, it would have been wise in this particular case, but it is an incontrovertable fact that in a large percentage of cases the cystoscopic examination may not be needed at all if the Roentgen ray is adopted first, and there can be no doubt about it that the ureters should not be catheterized if diagnosis can be made without it.

CASE IV.

In August, 1911, Mr. M. was brought to my hospital suffering from pain in the right side. The symptoms were those identical with chronic appendicitis except for the fact that the pain extended down into the right thigh and to the glans penis. Cystoscopic examination showed no pus or blood but the X-ray showed a

marked shadow about the size of a cantaloupe seed very distinct, and very low down in the pelvis. Suprapubic median incision was made and a healthy appendix removed. The peritoneum was opened and both ureters explored without finding a calculus. I lifted and palpated the seminal vesicles of both sides finding no calculus, the peritoneum was then split up to the right inguinal canal, still finding no stone. The muscular wall of the bladder was then thoroughly palpated and a fusiform calculus found imbedded about three-fourths of an inch from the right vesico-ureteral junction. The stone was removed and the patient recovered not only from the operation but also from the symptoms.

DISCUSSION.

DR. LeGRAND GUERRY, Columbia, S. C.—We should not let this very valuable paper go by default in discussion. It is an extremely interesting paper to me. It is interesting to me and to the general practitioner. Our experience with the question of stones in the ureter is not very extensive but it is considerable. My feeling, and my practice has always been that with stones that are located in the lower two or three inches of the pelvic ureter, where they are very frequently found, or in the bladder wall, with all deference to Dr. Knowlton, and not mentioning it at all in any spirit of criticism, because, the median incision is just as good a way to get it; but our way is simply to make a low McBurney incision, as one would expect to approach an appendix, dissect the peritoneum, lift it off the ureter, locate the ureter, and you can readily locate the stone and put the ureter on a little hook, incise the ureter, take out the stone and drop the ureter back into position.

I think we have had three cases in which we have had stone in both pelvic ureters, and in which we removed, on one occasion three stones from the right ureter and two from the left ureter. There is nothing especially difficult about it, but it is so feasible that we think it is advisable, rather than make a median incision to approach

the stones through a McBurney incision.

One interesting case (because this is a most important subject, and I wish to plead guilty of not having made the diagnosis of stone in the kidney when they have had chronic appendicitis, etc.) but those mistakes, under the combined method of cystoscopy and catheterization of the ureters, a first-class radiograph should prevent the possibility of error in this class of cases.

One patient, about 60 years old, we made a diagnosis of a hydro-nephritis, tumor due to an obstruction from a uretral calculus. A radiogram by one really expert in such matters located a stone in the pelvic ureter. We made a McBurney's incision and exposed the ureter, but before getting hold of the ureter we got hold of the kidney and found a tumor in the wall. We opened the ureter, passed a sound into the bladder, and up into the kidney. This patient was closed without any trouble. She went home and in a short time began a resumption of the previous symptoms. She went to New York and a very competent man passed a stylette into the ureter on the left side and radiographed the same stone which we supposed was there, with stylette in the ureter. She came back to Columbia and brought this radiograph with her. We were perfectly satisfied, however, that it was radiographing a calcareous gland, and made an incision in the lumbar region and found this large tumor filled with urine with practically all the substance of the kidney destroyed and a nephrectomy has relieved her.

I mention this to show that even with the combined means in the hands of expert men at times diagnosis is very difficult.

DR. G. T. TYLER, Greenville, S. C.—With stone in the pelvic ureter I do not believe it is advisable to operate on that ureter at once. I have seen a number of cases and a number of my friends have also told me of their's, where they have advised operation. The operation was not accepted, then in a week or so the patient passed the stone. I think it is safer that when the calculus is discovered not to advise operation right away, but to wait. If the patient does badly or if symptoms supervene which allow us to think it is not safe to wait any longer, then we can operate, but if we can wait, the patient, I think, will pass the calculus. A friend of mine asked me to attend an operation for the removal of a stone in the Pelvic ureter. The patient

was anesthetized and I palpated bimanually the thickened ureter through the vagina. It felt like a date-seed-shaped stone. The operation was undertaken through the vagina, catheter passed into the ureter and an attempt made to remove the stone. The surgeon was chagrined to find no stone; but there was a very much thickened ureter. One year later took out a tuberculous kidney on that side. The patient recovered without any further symptoms.

DR. G. F. McGINNES, Charleston, S. C.—I would like to mention a case of stones—three on one side and two on the other. This patient, in passing the stones three weeks later had a severe attack, and was given one-half grain morphine, and in about half an hour the stones came into the bladder and were afterwards passed into the urethra.

DR. LINDSAY PETERS, Columbia, S. C.—It is possible, also, to remove these calculi from the lower end of the ureter, at least in the female, by means of an instrument devised by Dr. Kelly, of Baltimore, for dilating the lower end of the ureter. I have not had such a case in my own practice, but have seen such cases in the practice of Dr. Kelly where, after diagnosing the presence of a stone in the lower end of the ureter he has been able to dilate the lower end of the ureter and subsequently have the stones pass, and in that way avoid the cutting operation.

As this has not been mentioned, I desire to call attention to this possibility.

DR. KNOWLTON closes.—I would like to thank the gentlemen for their very kind discussion of my paper, and would like to suggest to Dr. Guerry something that I am sure he already knows—in the instance in which he made a right and left McBurney incision, that those stones could have been removed through one median incision. And, in regard to the Kelly instrument, I did remove the calculi by putting the patient in a lithotomy position and by dilating the ureter.

I thank you very much.

MEMBRANOUS PERICOLITIS.

By A. E. Baker, M. D., Charleston, S. C.

IN 1908, Jackson, of Kansas City, Mo., presented to the Western Surgical Society, some observations on certain pathological changes

found about the right colon, to which he applied the descriptive names of "Membranous Pericolitis" or the "Pericolic Membrane."

Writers on this subject are now calling it "Jackson's Membrane"—or—"Jackson's Veil."

These observations made by Jackson extended over a period of about six years before he presented this paper. During this time he observed sufficient number of cases diagnosed as chronic appendicitis when operated upon proved not to be the appendix involved—but this Membrane to be the existing lesion.

Now with a true conviction that he had found a new surgical lesion, he announced his findings to the Scientific World.

The history of the first case in which he observed this membrane is so interesting that I will give it to you in his own words:

"A young lady consulted me for what was supposed to be an acute exacerbation of a long standing case of chronic appendicitis. She gave the history of a number of previous attacks. In each case she had suffered from pain and distress over her entire right abdomen, though more particularly referred by her to the site of the appendix. In none of the attacks had she temperature or pulse disturbances—in fact, none of the characteristics of an acute Appendicitis or Peritonitis. She had gone to bed, however, frequently for a day just from pain and discomfort. She said that she had never felt entirely comfortable in her right side for years. On palpation she complained of tenderness all over the right abdomen. There was no rectus rigidity. Her greatest tenderness was over the appendicular region—but could not localize to a finger point. The diagno-

Though not confirming his diagnosis, I operated to find the cause. The remaining ovary found quite healthy. By close inspection the veil-like membrane covering the ascending colon was found, etc."

In no instance does this Membrane resemble our ordinary conception of an adhesion. It is never adherent in the abdominal wall, nor to any contiguous loop of small intestines. Instead, it resembles more closely than anything we can describe a thin pterygium. In some cases the membrane is quite free and produces but limited retraction to the underlying colon. In some advanced and characteristic cases it seems to bind the colon close to posterior abdominal wall, and produces such marked angulations and convolutions of the colon as to practically produce a stricture of its lumen.

There has been a case reported, seen in autopsy, when a stream of water was caused to flow into the cecum through the ileocecal valve, the cecum distended almost to bursting

and yet none of the fluid would pass through the ascending colon and pass the hepatic flexure until it was milked through with the fingers.

Now as to the etiology of this membrane there is considerable speculation as to the cause, or origin of this condition. The varied theories offered may be classified viz: congenital, mechanical and inflammatory. Quite a number of surgeons have expressed the view that the membrane described is congenital in origin. Mayo is inclined to view this membrane as the true peritoneum, which, as the cecum descends, failed to settle itself closely in the normal way to the gut-wall, but, remaining loose, acquired the peculiarly excessive vascularization or in other words: that after the peritoneum has formed, the rotating cecum, coming down from its subhepatic position, pushes ahead of it an extra covering of peritoneum, is about the only hypothesis by which he can explain that form of Jackson's Membrane, which encloses the cecum and ascending colon as in a bag. This explanation of Mayo has been corroborated by those who have made studies of the Peritoneum in the foetus.

By courtesy of Dr. Alburger, Professor of Pathology in the Indiana University, twenty-eight foetuses, all over six months, were examined to determine the congenital origin of this Pericolic Membrane. This membrane was found in 5 of these twenty-eight foetuses. Reid found it present in three out of a series of twenty foetuses, or in about 15 per cent. of the foetuses examined.

The principle of mechanical irritation the result of visceral gravitations, to which F. H. Martin ascribes a part in the production of Membranous Pericolitis, is, without

doubt, an important factor. Pilcher's view which considers it the result of long continued and oft repeated mild infections of the peritoneal coverings of the cecum and appendix transmitted through the intestinal wall—and Gerster attributes the membrane to peritoneal reaction caused by infection, etc.

The following symptoms combined after Jackson's suggestion—are usually sufficient to establish a definite clinical syndrome.

First: we will consider pain, which is the dominant symptom causing the patient to seek surgical relief—believing Appendicitis to be the disease. The pain is quite generally diffused over the entire right side of the abdomen, though oftentimes particularly accentuated over the cecum and at the hepatic flexure beneath the ribs. The several attacks of pain are not however, as a rule attended by any elevation of temperature or by any pulse disturbance—or rarely, if ever, any epigastric disturbances. Diffused tenderness is likewise characteristic—but without rectus rigidity.

Disturbances of digestion are rarely absent. Constipation is marked—particularly in well developed cases. Differential diagnosis. The mistake most often made is diagnosing this condition as Chronic Appendicitis. In Membranous Pericolitis there is never any history of an acute appendicitis—no fever, no rigidity and no prolonged acute bed illness. In the true Chronic appendicitis the pain is in most instances referred to the epigastrium and the local signs of appendicitis become well marked. In Membranous Pericolitis the pain is always distinctly confined to the right side of the abdomen and is never epigastric.

Recently several cases have been referred to me with the diagnosis

of Appendicitis. One of these cases—a young man with a history of five different attacks of Appendicitis. The clinical history of these different attacks coincided with the symptoms which Jackson has given us as differential from those of Appendicitis. The operation on this patient revealed the truth: a Membranous Pericolitis—and not Appendicitis. The appendix was normal in every respect. It was not even encapsulated by this membrane—as it is often seen in some cases.

The operation in this case consisted in ligating this membrane—severing the tissue between ligatures—thereby releasing the underlying colon, which had been bound down.

Another one of these cases came with the following history: A young girl of 18 years old, had been operat-

ed on for appendicitis one year ago by one of our good Surgeons. The patient returned to her home in the country. In course of time complained of a pain in the same appendicinal region. Her family physician diagnosed adhesions resulting from operation. The patient continued to suffer—no treatment giving relief. She was referred to me for another operation—to sever these supposed adhesions. The operation again cleared up the diagnosis. There were no adhesions whatever—but Membranous Pericolitis—the lesion causing all the pain. The patient reports that she has been entirely relieved.

Other cases could be reported but deem this sufficient to emphasize the purpose of this paper.

SOCIETY REPORTS

CHARLESTON.

The Medical Society of South Carolina (Charleston County), held a regular meeting at its hall August 1, 1913, which was well attended and full of interest. Dr. Townsend presented a colored male, aged one year, upon whom he and Dr. G. F. McInnes had done a tracheotomy that day for the removal of an open safety pin in the larynx. He showed a skiagram of the pin in position.

Dr. W. A. Smith, the essayist of the evening, read a unique and interesting paper entitled, "Aneurism of the Abdominal Aorta." He reported a case and emphasized the difficulty of diagnosis. This was discussed by Doctors Maguire, Cornell, W. H.

Johnson, G. F. McInnes, Nathan and Mullally.

Under "Medical News," Dr. R. Wilson, Jr., reported a recent case of paratyphoid fever and reviewed the literature on the subject.

Dr. W. P. Porcher reported the case of a patient who had tuberculosis and syphilis co-existing. Tubercl bacilli were present and the Wassermann was 4+. Anti-leutic treatment was given with marked improvement following. Dr. Porcher also reported a case of facial neuralgia apparently caused by bulbar enlargement of the middle turbinate.

Dr. A. J. Jersey reported a case of para-typhoid with acute fulminating appendicitis which terminated fatally.

Dr. J. F. Townsend reported three recent cases of foreign bodies

in the upper air passages. In the first, a pin was lodged in the trachea at the bronchial bifurcation; in the second, a fish bone was in the trachea and in the third an open safety pin was in the larynx.

Several radiograms of these cases, taken by Dr. G. F. McInnes were exhibited. Dr. McInnes called attention to one of the X-ray prints showing the pin in the trachea and another picture taken after the operation which clearly showed an oedematous thymus.

Dr. E. H. Sparkman gave a further report on his colostomy case which is recovering and has no rectal incontinence.

The regular mid-monthly meeting of the Medical Society of South Carolina, (Charleston County) was held August 15, 1913, the president, Dr. J. C. Mitchell being in the chair.

Dr. C. W. Kollock read an extremely interesting paper on wood alcohol and its toxic effects. He clearly discussed the literature and cited two cases from his practice. He concluded by urging that proper legislation should be taken to protect the people from the careless use of this alcohol. The paper was discussed by Drs. Cornell, Townsend, Nathan, Scharlock, Whaley, F. L. Parker, Jr., Mustard and Pollitzer.

Dr. F. L. Parker, Jr., briefly but clearly gave a resume of the chemistry of ethyl and methyl alcohol.

Under "Medical News," Dr. D. L. Maguire reported that a few hours previous to the meeting he had given an alcoholic one-sixteenth grain of apomorphine guarded by strychnine and that the patient had collapsed, so that oxygen and artificial respiration was necessary for recovery.

Dr. W. P. Cornell reported a case of scurvy in an infant that had as evidence only pain and one hemorrhagic area.

Dr. Townsend presented a case on which a tracheotomy had been done a month ago. The patient, an infant had to be intubated to relieve laryngeal stenosis. The case is now perfectly well, eating and breathing normally.

Dr. Pollitzer stated that the system of whole milk caloric feeding now being used in the Roper Hospital was giving excellent results.

Dr. Scharlock reported two cases. One a gunshot wound of the tibia necessitating wiring. The other, that of a negro whose skull was fractured by a lightwood billet; the frontal bone was so badly fractured that pieces of bone had to be removed from the brain. A large amount of bone was removed and a celluloid plate inserted. The patient is recovering.

There being no further business the Society adjourned.

Respectfully submitted,
R. M. POLLITZER,
Corresponding Secretary.



BOOK REVIEW

THE PRACTICAL MEDICINE SERIES—

Comprising Ten Volumes on the Year's Progress in Medicine and Surgery; Under the General Editorial Charge of Gustavus P. Head, M. D., Professor of

Laryngology and Rhinology, Chicago Post-Graduate Medical School, Charles L. Mix, A. M., M. D., Professor of Physical Diagnosis in the Northwestern University Medical School, Volume 3, The

Eye, Ear, Nose and throat; Edited by Casey A. Wood, C. M., M. D., D. C. L., Albert H. Andrews, M. D., Gustavus P. Head, M. D., Series 1913: Price \$1.50; Chicago: The Year Book Publishers, 327 So. La Salle Street.

This is a well written resume on these specialties. We would call attention to a consideration of the income and emoluments of the Specialists of to-day as set forth in the introduction. It is stated that these conditions are not nearly so favorable as they were a few years ago.

There is an excellent article on Hygiene of the Eye.

THE PRACTICAL MEDICINE SERIES—

Comprising Ten Volumes on the Year's Progress in Medicine and Surgery; under the general Editorial Charge of

Charles L. Mix, A. M., M. D., Volume 4. Gynecology, Edited by Emilius C. Dudley, A. M., M. D., Professor of Gynecology, Northwestern University Medical School; Gynecologists to St. Luke's and Wesley Hospitals, Chicago, and Herbert M. Stowe, M. D., Associate in Gynecology, Northwestern University Medical School; Attending Obstetrician to Cook County Hospital. Series, 1913; Price, \$1.35. Chicago, The Year Book Publishers, 327 South La Salle Street.

This book presents a comprehensive review on the whole subject as found in the literature. We know of no better way to quickly keep abreast of the times than to read, from cover to cover, such a work as this.

The references are frequent and the student will therefore continue his investigations to the original sources.

American Proctologic Society.

Fifteenth Annual Meeting, Held at Minneapolis, Minn., June 16 and 17, 1913.—Abstract of Papers.

President's Address.—Proctology and Procto-Enterology.—By Louis J. Hirschman, M. D., of Detroit, Mich.

He stated that, "Proctology come into its own," is in reality the study of the entire intestinal tract, its diseases and their remedies. A Proctologist becomes skilled to a high degree in the medical and surgical treatment of the diseases of the lower bowel. A medical practitioner, sufficiently skilled and competent to treat diseases affecting any portion of the intestinal tract, should be competent to treat all portions. The modern Proctologist, therefore, must be an intestinal surgeon. He must have some knowledge of modern views and discoveries bearing on the digestive tract, as they have a direct bearing on intestinal function and pathology. He should no more limit his activities to the rectum and sigmoid alone, than does the laryngologist to the larynx, or the urologist to the urethra.

An arbitrary line of division which limits a specialist's activities to the lower six or

eight inches of the colon is absurd. The Proctologist has no moral right to withhold his special skill in intestinal surgery from the patient who suffers from diseases of the small intestine or upper colon. The larger problems of intestinal stasis, chronic inflammatory conditions, and malignant diseases of the small and large intestines, demand the best that is in every fellow or our organization. He should ever study and fathom out the problems of etiology, pathology and proper therapy.

The establishment of a section on Gastro-Enterology and Proctology in the American Medical Association would greatly increase the value of that organization to every one of its members who comes in contact with diseases of the alimentary tract.

It is the American Medical Association which should foster all that is new and valuable in medicine. It is the greatest medical educational institution in our country; and the Fellows of the American Proctologic Society should be the most enthusiastic supporters of such a section, if established.

Memoir of James P. Tuttle, New York City, and Memoir of Louis Straus, St. Louis, Mo.—By Joseph M. Mathews, M. D., of Louisville Ky.

These memoirs were inspired by precious memories of close personal association with the late Fellows of the American Proctologic Society, who were both charter members of that organization. In well chosen and deeply sympathetic words the noble character and high professional worth of these lamented Fellows were outlined in a manner which did honor to their memory.

A Review of Proctologic Literature From March, 1912, to March, 1913.—By Samuel T. Earle, M. D., of Baltimore, Md., Chairman of the Committee on the same.

In this review of Proctologic literature Earle quotes freely from the following authors:

Dr. Edward H. Goodman, of Philadelphia, Pa., (*Progressive Medicine*, December, 1912, page 100), quoting from Ageron, (*Archiv. f. Verdauungskrankheiten*, 1911, XVII, page 584,) "Constipation."

W. Ernest Miles, F. R. C. S. England, (*The Glasgow Medical Journal*, No. 11, February, 1912, page 82), "The Treatment of Carcinoma of the Rectum and Pelvic Colon."

H. Graeme Anderson, M. B., Ch. B., F. R. C. S., (*British Medical Journal*, 1912, Vol. 1, page 129), "Solid Carbon Dioxide in the Treatment of Hemorrhoids."

Dr. Walton Martin, New York City, (*Annals of Surgery*, Vol. LV., 1912, page 901), "Carcinoma of the Rectum: Combined Abdominal and Perineal Rectectomy."

Harrison Cripps, F. R. C. S. England, (*British Medical Journal*, 1912, Vol. 2, page 843), "The Treatment of Rectal Cancer."

Dr. William J. Mayo, Rochester, Minn., (*Annals of Surgery*, Vol. 56, 1912, page 240), "The Radical Operation for the Relief of Cancer of the Rectum and Recto-sigmoid."

Mr. Lockhart Mummary, (*British Medical Journal*, Vol. 1, 1912, page 1427), 'Recorded Cases of Intractable Constipation Treated by Operation.'

Dr. Arthur W. Elting, Albany, New York, (*Transactions of the American Surgical Association*, 1912, Vol. XXX, page 176), "Treatment of Fistula in Ano, with special reference to the Whitehead Operation."

Dr. Alexis V. Moschowitz, New York City (*New York State Journal of Medicine*,

Vol. XII, No. 11, 1912, page 654), "The Pathogenesis, Anatomy and Cure of Prolapse of the Rectum."

Dr. William C. Lusk, of New York City, (*Annals of Surgery*, January, 1913, Vol. LVII, No. 1, page 106), gives a description of, "An Instrument for Establishing Fecal Drainage, with a Report of its use on a Case, and a Consideration of the Site for Making a Fecal Fistula in Low-seated Intestinal Obstruction."

Two new proctoscopes have been devised during the past year. "The 1912 Proctoscope." Jerome M. Lynch, (*New York Medical Journal*, 1912).

"A new Pneumo-electric proctoscope and sigmoidoscope." F. C. Yeoman, (*Journal of American Medical Association*, 1912, Vol. LVIII, page 929).

There have been several reports of the use of Extra-dural Sacral Anaesthesia, von W. Stoeckel, (*Zentralblatt fur Gynakologie*, No. 1. 1909), von Dr. Maryan Tobiaszek, (*Zentralblatt fur Gynakologie*, 33 Jahrgang, 1909), and Dr. Jerome M. Lynch, (*Medical Record*, February 8, 1913, page 235).

A Method of Operating on Fistula Without Cutting Muscular Tissue.—By Rollin H. Barnes, M. D., of St. Louis, Mo.

This method is used in those cases of fistulae which involve the sphincter muscles. An incision is made external to the sphincter, similar to that made when incising an ischio-rectal abscess. Through this opening the scar tissue is dissected out up to the internal opening. An incision is then made at the skin margin, so that the middle of this incision passes through an imaginary longitudinal line drawn from the internal opening. A submucous dissection is then channeled out up to the internal opening. Gause drainage is kept in this until the external wound is healed sufficiently. Then the submucous tract, which remains, is incised under local anesthesia. No muscular tissue having been cut, the function of the sphincters is preserved intact.

Report of a Case of Fecal Tumor Associated With Hirschsprung's Disease.—By Alois B. Graham, A. M. M. D., of Indianapolis, Ind.

Dr. Graham reported a case of Fecal Tumor associated with Hirschsprung's Disease, the clinical history of which is unique and exceedingly interesting. The patient, a young French woman, aged 27, stated

that she had undergone three abdominal operations for Hirschsprung's Disease, or Megacolon.

Present illness dates from birth. Not unusual to go a week or ten days without a stool, and then evacuation was produced only by means of enemata.

At the age of 12, her condition was diagnosed as one of pregnancy on account of the vomiting and the appearance of the abdomen.

At the age of 19, she suffered an attack of complete intestinal obstruction due evidently to fecal tumor. She was operated, and a large fecal tumor was removed from the sigmoid. Six months later, she was operated for post-operative adhesions. No resection of the bowel or short-circuiting operation was performed.

At the age of 25, she suffered an attack of complete intestinal obstruction. She was operated, and a large fecal tumor was removed. Patient stated that the bowel was plicated in closing. Wound healed promptly, but she remained in the hospital for three months purely for clinical purposes.

August, 1912, she, for the third time, presented symptoms of complete intestinal obstruction. She had been absolutely constipated for seven days. Abdomen enlarged and everywhere tympanitic except in the lower right quadrant, where there was a dull area corresponding to a large tumor which could be readily palpated. Tumor, a fecal mass, was exceedingly hard and did not pit on pressure. It could be easily moved in every direction throughout the abdomen. Attacks of violent, colicky pains were frequent. Vomiting was persistent, pulse 120, Temp. 101 F. Hydrogen peroxide, introduced into the rectum, had no effect on the tumor, but produced excruciating pains over the entire abdomen. Patient consented to operation with the promise exacted that nothing radical be attempted. She requested that the fecal tumor be removed, but refused to give her consent to any short-circuiting or resection of the bowel.

Median incision. No adhesions. Fecal tumor in sigmoid. Tumor of "stony" hardness. Its greatest circumference was 19 $\frac{3}{4}$ inches, its weight was 64 ounces. The dilatation which was confined to the sigmoid was very marked, the greatest circumference being 20 inches.

Patient made an uneventful operative recovery, and was discharged from the hos-

pital on the 10th day. She gained in weight and appeared to be in the best of health. She experienced no difficulty in procuring daily evacuations with the aid of small doses of cascara.

December 15th, 1912, was the date of her last visit to the writer's office. At this time she was doing nicely. Inquiries as to her whereabouts were made and the reports were to the effect that she has returned to France. Information was received the later part of April that patient had gone to Chicago from Indianapolis. She evidently suffered another attack of intestinal obstruction. She was operated there April 19th, 1913, and died three days later.

A Further Consideration of Sir Charles Ball's Operation for Internal Hemorrhoids.—By Alfred J. Zobel, M. D., of San Francisco, Cal.

After a trial of this operation the author of the paper sums up his conclusions as to its value, as follows: That, as a modification of the old ligature operation, it is better than the latter, and at the same time is far superior to the clamp and cautery operation, in that it takes care of and avoids the recurrence of that revoluted anal skin ring which generally becomes markedly edematous immediately after these operations, leaving behind skin tags after the swelling subsides.

In every instance in which the essentials of Ball's technique have been followed out carefully the author's results have been exceedingly satisfactory.

The operation is recommended.

Deductions Based on an Analysis of 3,000 Rectal Cases.—By T. Chittenden Hill, M. D., of Boston Mass.

The principle object of this tabulation of 3,000 consecutive rectal cases was to furnish data as to the relative frequency of the various affections of the rectum and colon. There was a total of 1,120 operations performed in this series, and some deductions of a practical nature were drawn from this experience. It was found that rectal ailments were more common among males than females, the ratio being three to two.

Hemorrhoids formed a large proportion, 41 per cent of the total. Next in frequency were abscesses and fistulae, 18 per cent, and the remaining disorders were tabulated as follows: pruritus ani 8 per cent, anal

fissure 10 per cent, Colitis 6 per cent, pro-lapsus ani and procidentia recti 3.7 per cent, cancer of the rectum and sigmoid 2 per cent, benign growths 1.5 per cent, stricture 1.5 per cent, Syphilis 2 per cent, Constipation 2.8 per cent.

Other miscellaneous conditions were recorded which made up but a fraction of one per cent, such as anal verruca, congenital stenosis, patulus anus, pilo-nidal sinus, furuncles, foreign body, incontinence, coccygodynia, trauma, sigmoid diverticulitis, etc.

Personal Reminiscences Upon the Subject of Proctology.—By Jos. M. Matthews, M. D., of Louisville, Ky.

The author of this very interesting paper tells of his early experiences in his chosen field of endeavor. He relates his meeting many years ago with those renowned surgeons who have made St. Mark's Hospital, of London, so famous.

Having been called "The Father of Proctology," he gratefully accepts the title, and, like a father, he offers good advice to, and will ever cherish what he now terms his offspring, the American Proctologic Society.

Z-Plastic Operation for Anal Stricture.—By Wm. M. Beach M. D., of Pittsburg, Penn.

The writer states that extensive cicatrices, resulting from trauma, and involving the partial or entire anal circumference, not infrequently resist the usual methods employed to restore the physiologic function of the anus.

He therefore employed what he terms a Z-plastic method when operating on an anal stricture. The principle underlying the procedure is the transposition of dermic tissue in such manner as to obliterate the crest of the fibrous band.

The first incision is made along the crest of such a band; then incisions are made at right angles from both ends, but running in opposite directions, thus approximating the letter Z. The flaps thus outlined are dissected up, transposed, and sutured. Various modifications are permissible, according to the extent of the stricture.

Sphincteric Atrophy—Causes, Consequences and Treatment.—By Ralph W. Jackson, M. D., of Fall River, Mass.

Muscular atrophy about the anus produces more serious consequences than hypertrophy.

The physiology of defecation is studied, and the action of the internal sphincter and of the external sphincter and levators sharply contrasted with their different innervation. This is preparatory to consideration and classification of the causes of sphincteric disuse and consequent degeneration.

Congenital causes are found in imperforate anus and congenital ano-vaginal cloaca. Coincidental with general weakness cases occur in infants, the aged, and the extremely ill. Traumatic causes are faults of proctologic operations and after-care, or obstetric lacerations, or due to prolonged divulsion by protruding piles or procidentia. Nerve causes are primarily sympathetic as in rectal stenosis, or central as in spinal cord lesions.

Degeneration or absence of one sphincter without impairment of the other is considered.

The unhappy consequences of sphincteric inadequacy are presented.

Treatment is preventive or restorative. Neither avails much when due to nerve cause, except possibly in luetic cases. Of first importance is the minimizing of trauma, both obstetric and proctologic, (especially sphincteric incision). Repair of trauma should be immediate and accurate. Later attempts are much more difficult and uncertain on account of atrophic muscular changes, and often results must depend on cicatrical contraction and adaption of other muscles especially the levators, to sphincteric duty. Restoration of long, over stretched muscles is largely dependent on general treatment.

Sphincteric deficiency is a troublesome problem to every practitioner, and the prognosis is uncertain.

Further Observations on the Surgical Anatomy of the Large Bowel.—By Granville S. Hanes, M. D., of Louisville Ky.

Few realize that the capacious portion of the colon is at its cecal extremity. The diameter of the average cecum is estimated at three inches, which is about the same as the rectum, though the cecum and ascending colon have a much greater capacity than the rectum and lower extremity of the sigmoid. The large intestine gradually decreases in size from the cecum to the rectum; the descending colon measuring one and one-half inches, or even less, at its narrowest point, these physical conditions explain in a measure, the locality to which

large quantities of fluids are transported when injected into the rectum.

The question of antiperistalsis in the large intestine in man is yet to be settled. It has been suggested that anastalsis may be inferred to exist in the proximal human colon for the reason that rectal enemas have been observed to traverse the entire length of the colon and escape through an artificial opening in the cecum. Also, because surgeons have attempted to stop a fecal-fistula discharge by transplanting the ileum into the transverse colon and sigmoid, but without success. The fact that rectal enemas have been seen to pass through the rectal fistula is, he is confident, little evidence of the operation of anti-peristaltic force.

An ordinary colon tube was introduced two or three inches into the rectum of a dog, and through a funnel inserted into the proximal end of the tube was poured in bismuth-buttermilk, and by the X-ray the author observed it traverse the large intestine to the ileo-cecal junction with no sign of anti-peristaltic movements. Similar experiments were made on children with corroborating observations. He has seen a pint of bismuth in suspension, when introduced into the rectum of an adult, pass around to the cecum in a few minutes with no evidence of aid by anastalsis.

Under normal conditions peristalsis in the large bowel is a slow process, and it is no more than natural to suppose that anastalsis is also slow in its operation. The brief time, then, required for fluids to pass from the rectum to the cecum compels us to consider the influence of other and more potent agents on the intestinal contents. Two factors are in operation when fluids are conveyed from the rectum to the cecum. The first is the distensible and elastic nature of the intestinal tube; and the second is the hydraulic principle which controls fluids wherever they may be. If fluid is forced rapidly into the rectum that organ will be seen to be widely distended; but this same fluid can be seen to make its way up the intestinal tube along the path of least resistance. The distended rectum, because of its elastic nature, presses upon the contents till every drop of fluid within its lumen is subjected to an equal pressure. So if additional fluid is forced into the rectum the same factors will continue to operate.

If the ileum is transplanted into the transverse colon or sigmoid the watery in-

testinal contents will be forced by the elastic intestinal tube in the direction of least resistance. The right segment of the colon is the capacious portion of the large bowel, so if fluids are under greater intestinal pressure in the lower bowel the fluid contents will travel up to the cecum.

The author says, that even if we do admit the existence of anastalsis in normal conditions of the colon, he does not believe it to be an important factor in conveying fluids from the rectum up into the colon.

Hanes had a series of three X-ray pictures made on the same individual to show what actually happens when tubes are introduced into the bowel. The first, shows a thirteen inch proctoscope introduced its entire length. The distal end is one inch above the umbilicus. The second, shows an ordinary colon tube introduced its full length after the removal of the proctoscope. The tube passed along the sigmoid up to the highest point, (one inch above the umbilicus), and then turned upon itself, the distal end passing back into the rectum. The third radiograph shows the bowel injected with bismuth buttermilk, and the thirteen inch sigmoidoscope introduced again. This picture shows that it is impossible to pass any instrument high up in a normal colon, except by the greatest accident. The sigmoid is lifted up into the abdominal cavity; its lower arm is occupied by bismuth and the metal tube; while the upper segment of the sigmoid is seen very distinctly where it has dropped back from a point opposite the umbilicus into the pelvis to its junction with the lower extremity of the colon. He claims the latter radiograph proves that it is impossible to pass a non-flexible instrument beyond the first half of the sigmoid.

To control the outflow of fecal material in colostomies the author has found, in five cases operated since January of this year, that the hard rubber rod can be allowed to remain permanently, when used as in the Maydl operation. The opening in the intestine is above the rod. A thin gauze dressing is applied over the bowel, and a strip of gauze is thrown around the knuckle of the intestine and overlaying gauze is then tied under the supporting rod. The strip of gauze constricts both the upper and lower segments of the bowel, and exerts a most satisfactory control over these artificial openings.

The Ano-Rectal Line: Its Clinical Significance.—By Collier F. Martin, M. D., of Philadelphia Pa.

After discussing the development of the anus and rectum, Martin states that the ano rectal line, or dentate border, has a very important clinical significance, in that it is the point at which both the blood supply and nerve supply become differentiated. Above it the blood is carried by the portal circulation to the liver; while below it, the blood stream mingles with the general circulation by way of the inferior vena cava. Above it, the rectum is supplied only with visceral or sympathetic nerve fibers, while below it the anus and its surrounding structures are supplied with spinal nerves, and by sympathetic filaments. These spinal nerves carry sensory impulses common to nerves having specialized cutaneous nerve-endings.

Below the ano rectal line, as evidence of irritation of the spinal innervation, sensory disturbances are expressed in terms of pain, itching, formication, and in alterations in spinal sense of touch, and temperature, with their modifications such as dryness and moisture. Stimuli producing these sensory disturbances show their presence by exciting motor contraction, or by inducing alterations in secretion.

Above the ano rectal line all of the specialized spinal sensations are absent, only the visceral sensations being present. In the rectum it is only pressure and muscle-sense that appeal to our consciousness. This sensation is translated in the brain into a desire for stool, which desire is inhibited or assisted voluntarily, as occasion may require.

Excessive spasm of the involuntary muscles supplied by visceral nerves produces an unpleasant sensation, which differs from pain of spinal origin in that it is difficult to localize, and may be described more as an ache, which is difficult to bear and exhausting to the patient.

Lesions of the crypts of Morgagni, since they involve both the visceral nerve supply of the rectum and the spinal innervation of the anus, are associated with many disturbances of the reflexes.

Infection, and malignant processes, occurring above the dentate border, tend to spread upwards, by way of the deep lymphatics, to the pelvic or uro-genital organs, or to the liver, via the portal system. Below the ano rectal line superficial abscesses result from infections of the

proctodeum and the rectal crypts. Malignancy here is associated frequently with extension to the inguinal glands.

In general, there is a marked tendency for pathologic processes to limit their invasion to the embryonic structure in which they began; the ano rectal line being the "great divide" between the ectodermic and the entodermic structures. Rectal infection, and malignancy, rarely extend below the dentate border, while anal pathology usually remains below this line and the levator ani muscles.

Ano rectal symptomatology is equally differentiated. The subjective symptoms of a pathologic process bear little relationship to the lesion, per se, but depend upon the interference with the functions of the spinal or sympathetic nerve supply of the tissues involved, whether this interference be mechanical, inflammatory, or functional.

Further Observations on Pruritus Ani, Its Probable Etiologic Factor; Results of Treatment.—By Dwight H. Murray, M. D., of Syracuse, N. Y.

Dr. Murray's paper, which is a continuation of his investigations on the etiology and treatment of pruritus ani, gave some new points which he had observed during the past year, and his additional experience in the treatment of patients. He found no reason for materially modifying his former reports, but has gathered data which helped to prove the correctness of his previous work. He found streptococcal infection in three cases of pruritus ani and vulvae, and in four cases of pruritus that had involved the scrotum as well as the anus. These complicated cases improved, with the exception of two vulvae cases, with the exception of the vaccine treatment.

During the past year Dr. Murray has increased his former series of thirty-two cases, by twenty-five additional cases, in five of which streptococcal infection was not found. These cases showed other infections, which still further proves the co-igenous nature of pruritus ani; and also demonstrates that other bacteria than streptococci may bear a causal relationship, as was hinted in his first paper on this subject.

His cases, so far as he has been able to determine, have not been affected by diet. Since Dr. Murray discovered the infection in pruritus ani he has never interfered with the food of any patient, neither has he

restricted them in the smoking or drinking habits. The improvement under the vaccine treatment, without regard to eating, drinking, or smoking, gives him additional proof for the bacterial theory.

During the past year he has carefully investigated as to whether or not the itching extends into the anal canal beyond Hilton's white line, with the result that only in one instance did it extend beyond that point, and then only for a short distance.

His investigations of the past year have given him additional proof that pruritus ani is not caused by any local lesion within the anal canal, and that when such lesions exist with pruritus ani they are coincidental.

In the cases that have been operated for local lesions the pruritus ani has not been permanently improved as a result of the operative procedure.

He said that rectal and general surgeons have observed many cases of fistulae with discharges upon the anal skin, without pruritus ani being present. The same is true of hemorrhoids, constipation and other rectal lesions, pruritus ani occurring in only a small proportion of such cases. He, therefore, still holds that when pruritus ani exists in connection with other lesions that it is a coincidence. In his 1912 report he gave a summary of nine hundred consecutive rectal cases wherein this fact was established fairly well.

He referred to the opsonic index, or more properly the coefficient of extinction of opsonins, and claimed that much valuable information was to be gained by this test.

His work shows that if a complicating infection exists, and other bacteria than streptococci are found to be the sole invading organisms, we must use the corresponding autogenous vaccine. The opsonic index, following a bacterial diagnosis, is the proper method for determining this.

The results of treatment, and the history of patients prove to him, that if pruritus ani exists with local lesions which demand operation, that the prognosis depends upon whether a skin infection is present or not. If the skin infection is present the local lesions may be cured by the operation, but the patient should not be led to believe that the pruritus ani will also be cured by it. Per contra, if a skin infection does not exist with a local lesion and itching, the prognosis may be that the itching

will very likely cease with the cure of the local lesion.

After personal investigation in treating, watching results, noting how cause, effect, and results, dovetailed together; comparing these investigations with statements and theories made in text-books, and in articles appearing from time to time in medical journals, and containing no definite pathology of scientific reasons for cause and effect; Murray cannot understand how the profession will uphold such theories, rather than the bacterial theory which has been so well proven in his own cases and confirmed by other observers.

The uniformity of the bacteriologic findings is a strong support for the bacterial theory of the etiology of pruritus ani. The chronicity of all the cases, the uniform symptoms; the similar conditions of the skin, the locality, the regularity as to the time of attacks; the uniformity of itching outside of Hilton's white line, the uniform blood findings as to the co-efficient of extinction of opsonins, and the fact that all local applications which have given beneficial results in the past have contained a strong germicide; all point directly to a common cause. Further confirmation is found in the uniformly good results of treatment with autogenous vaccine of the variety of bacteria against which the patient has a low phagocytic power; and in the lack of good results by the various haphazard methods of treatment in general vogue.

His reference to fissures in previous papers having been misunderstood by some, he desired to state that he had referred only to fissure-like cracks of the skin, and not to anal fissures or ulcers.

Endo's medium is used to plate the cultures. The vaccine employed is of the strength of one billion to the CC., beginning with two minims, or one hundred and thirty millions.

Dr. Murray refers to a paper written by Dr. Jerome Wagner, of New York City, published in the May number of the *Medical Review of Reviews*, in which Dr. Wagner reports some erroneous ideas claimed to have been gleaned from reading Murray's first two reports. Dr. Wagner not having been able to confirm these reports, Dr. Murray pointed out to the errors of technique in Dr. Wagner's work, as well as his errors in the interpretation of the reports.

Dr. Murray gave statistics, in favor of his theory, drawn from three years original work on the subject; he also gave a

summary of the results of treatment, showing the favorable clinical results with autogenous vaccines in a large majority of the cases treated.

He summed up his conclusions as follows:

1st. Results of the past year's work continue to uphold the correctness of the bacterial theory of pruritus ani.

2d. It is advisable to make a bacteriologic examination of all cases of pruritus vulvae; also of cases of scrotal pruritus.

3d. The coefficient of extinction of opsonins is a valuable aid in diagnosis in complicated and obstinate cases.

4th. Pruritus ani in this series of cases rarely extends above the white line of Hilton, and it is still subjudice.

5th. The presence of a skin infection with a local lesion begets an unfavorable prognosis for the cure of pruritus ani by an operative procedure.

6th. The absence of a demonstrable skin infection and the presence of a local lesion, with pruritus ani, will justify us in making

a favorable prognosis for the cure of the pruritus ani by an operative procedure.

7th. Pruritus ani, with such infection as we have demonstrated, and a lesion existing in the anus or rectum, according to his statistics, is a coincidence; and the latter lesion is not the cause of the pruritus ani.

8th. The sphincter muscle does not allow a leakage of rectal mucous upon the anal skin of one who has pruritus ani, except there is a patulous anus, any more than it does in a normal individual who has no pruritus ani. The moisture of the parts is due to a low grade inflammation of the infected anal skin.

Treatment of Fistula-in-ano.—By J. A. Mac Millan, M. D., of Detroit, Mich.

There are three essentials for the operation for this condition:

1st. An incision that will open up every ramification of the fistulous tract.

2d. The excision of the fibrous tissue which forms its walls.

3d. Free drainage, and a regulation of the granulation by means of pressure by gauze packing.

Minutes of the Scientific Session of the South Carolina Medical Association---Continued From Last Issue.

Sixty-fifth Annual Meeting Held at Rock Hill, S. C., April 15, 1913,
Southern Medical Association.

DR. ROBERT WILSON: I just want to say a word in behalf of the Southern Medical Association. This organization, a few years ago, grew out of the Tri-State Medical Association of Alabama, Tennessee and Georgia. Year before last, at the close of the Harrisburg meeting it had grown until the membership numbered about 700. Last November at the close of the Jacksonville meeting the membership had doubled until now the membership is about 1,600 and growing every day. It has extended from that old Tri-State Association until now it extends from Maryland on the one side to

Oklahoma and Texas on the other, and with the increase in multitude it has also increased its strength and influence.

All of you who attended the Jacksonville meeting will recognize what I say. Some of the very best scientific work that has been done in recent years was set forth before us there. I say it is growing in strength and in influence. This year a very influential member of the Southern Medical Association is the President of the American Medical Association. I do not think that the South has given a President to the A. M. A. since South Carolina gave Moultrie many years ago.

One of the works of the Southern Medical Association is to develop those potentialities, and it is doing that rapidly, and I want to ask you all to join the Southern Medical Association and lend your influence to this development. The membership fees are \$3 a year and that includes the Southern Medical Journal which those who take it realize is one of the good journals of the country. You can all have the Journal and membership also for a very small additional sum. The representative of the Southern Medical Association and Journal is here and would be glad to see you and talk with you all and give you such information as you may wish. Let him tell you what the Southern Medical Association is and what it is doing.

One thing more: The Southern Medical Association is arranging a special train to Minneapolis this year, at the meeting of the A. M. A., and I hope that all of us who are able to do so will go to that meeting and make that a record meeting.

DR. WM. WESTON: I just want to endorse, in a very few words what Dr. Wilson has said. It was my pleasure last year to attend the meeting at Jacksonville, and I was profoundly impressed with the character of work that those men are doing.

I would like also to speak of Dr. Bass, of New Orleans, a man who has declined a position at the Hopkins in order to remain in New Orleans and do the work that it is his duty to do. Although we are living in a temperate zone, we are really living in a sub-tropical climate and we have diseases peculiar to this climate. These men of the Southern Medical Association are carrying out various lines of thought looking to the accomplishment of things along these lines.

We will miss a great deal if we do not join this Association. There you will meet more of the cream of the Southern Medical profession than anywhere else, and I believe in a few years you will meet all of the cream at the Southern Medical Association of the Southern States. I do not think you ought to miss the chance of going there and participating in their work.

Upon motion Dr. Hodges and other visiting physicians accorded the privileges of the floor.

Report of the Sims Memorial Committee.—

Read by Dr. S. C. Baker, of Sumter.

DR. GRANGE SIMMONS: I occupy a somewhat anomalous position on this Com-

mittee. Dr. Baker very modestly declined the chairmanship, to which he was entitled, by having suggested the movement. I feel that Dr. Baker has done all the work. He has been very zealous and has done everything that has been done. He originated the idea and I do not feel that I am doing the Committee or myself either justice by remaining on it. I was unwilling to accept the Chairmanship at the time, but Dr. Baker urged it. I feel that it is an empty relationship, with Dr. Baker doing the work, and I ask to be relieved from the Chairmanship.

DR. WANNAMAKER.—Having always lived in the county adjoining that of Marion Sims, and having attended the same schools that Marion Sims did, I feel a special interest in this movement, and for another reason: When I began to practice medicine seven years ago I read the life of Marion Sims, and I do not know of anything that has helped me so much as that book; it has given me a great deal of comfort, and I will personally volunteer to do what I can in Chesterfield County to aid in this work.

DR. FISHBURN.—Probably it would be better coming from a man a member of some society other than the Columbia Medical Society. Any way, I want to make this suggestion: That this committee send a copy of this report, read to-day by Dr. Baker, to the Secretary of every county society, requesting him to read that letter. I believe if there is a man here to-day who has not contributed his part, he will do it. For instance, a county that has given very little, when they see from that report what Columbia and some of the other places have done, they will probably feel a little badly over it and be inspired to give more, and I feel it will be one way of increasing the subscription from some of the societies, who certainly could do a great deal more than they have done.

DR. LEE SANDERS: I think that Dr. Baker has done this already: sent a copy of this letter to the Secretary of each County Society. I hear the new management for next year have some good schemes up their sleeves, and I move that the raising of this money be left in the hands of the officers of the coming year.

DR. FISHBURN: I think there is a little mistake about that. We have never received a report like that read here to-day, showing what these other counties have given. I think it well to have a full report.

THE PRESIDENT: This is a little out of order at this meeting and would necessarily have to lie open until next year, to be acted upon by the House of Delegates.

DR. PRESSLEY: Mr. Chairman, I have been requested, if it is not out of order now, to make a few remarks to the Association on this subject.

As we go about our accustomed business from time to time, we pass occasional sections of our land set aside for the resting place of the dead—God's acre—the City of the Dead—shaded by the bay and the myrtle, with grassy walks and orderly rows of mounds and monuments; and I know the question has come up in the minds of every one of us: "For what end are these things intended?"

"Can storied urn or animated bust back to its
Frail tenement call the dust?"

We know that it cannot. No one believes that it can. These monuments are a pathetic effort on the part of the living to honor the memory and commemorate the virtues of the dead, and a still more pathetic protest against allowing our dead to be forgotten, for of all the things that humanity dreads is the thought that after we are gone we will be forgotten.

Now Dr. Sims does not need a monument in a cemetery in order that he shall not be forgotten. So long as there is written or spoken a word on modern gynecology; so long as there walks the earth a single patient who needs the services of the gynecological surgeon, so long will his memory grow greener and greener with the flight of the years. But if he does not need that monument, we need that monument in order that our obligation to that memory shall be discharged. In honoring Sims we honor ourselves, his state, his friends, his people, if they were alive today; and to forget him and to fail to remember him in the shape that we should do is to prove recreant to all those things which South Carolina has heretofore never been proven recreant.

There is another reason why this monument should be erected: It will be a standing notice to the world that there are other avenues of greatness than wading through seas of slaughter to a throne. The pathway of the ages has been marked on the left and on the right to this butcher and to that butcher; monuments to infamy that swells to heaven itself; and this monument will be a proclamation silent, voice-

less, but audible all over the world that there are other and better avenues to greatness than to leave—

"Where once a peaceful hamlet stood
Heaps of ashes slaked in blood."

It is better to build up than to tear down, and this monument will proclaim to the world that conservatism is better than destruction. And if this monument is to be erected, who shall erect it? What would be said of that family who, when they had borne one of their loved ones to their last resting place sat idly by and allowed that person's memory to be lost in oblivion, unless some kindly neighbor should put up some stone to his memory? And what will be said of us if we depend upon Alabama to erect a tablet in memory to Sims,—a passing place to which he went? or of New York, and we, his people, do nothing of the kind? (Applause.)

My friends, if there is not in us a sufficient spark of manhood to make us do our duty because it is our duty, then let us think and tremble at the whips of scorn by which we will be lashed by generations to come when it is known that we knew our duty and did it not! (Applause.)

DR. MAYER: I offer this resolution:

"Resolved, That every member of this body pledge himself to use his personal efforts to raise the sum necessary for the monument to be erected to J. Marion Sims."

Motion carried.

DR. FILIMORE MOORE: I would like to say that it seems to me that possibly this monument might be something more vital than a mere bust or a statue; that the new idea coming into the world to-day is that a monument, to be a real monument, must be a useful monument; and one of the most beautiful monuments in New York to-day is the Cooper Institute, which will be a perpetual and beautiful monument to the principles which Peter Cooper held. If this monument could be a means for the preservation of life, and, above all, a means for preventing death, it would be a monument indeed.

THE PRESIDENT: The Association will meet in 1914 on the third Wednesday in April, and the meeting will be held in Florence, South Carolina.

We come now to installing the new President and I will ask Doctors Peters and Miller to escort him to the chair.

Dr. Weston, it gives me pleasure to resign the Chair to you, and to put you into the

hands of such a valuable lieutenant as Dr. Hines, and to wish for you as nice a time as I have had this past year.

DR. WESTON: I thank you very much. There are some Committees to be appointed,

but I desire to think the matter over and will announce the names to the Secretary.

As there is no further business before the Association, I declare the meeting adjourned.

Current Medical Literature.

AUTOPSIES.

The rediculously small number of post-mortem examinations made in this country is a standing reproach to American medicine. An investigation conducted by a committee of the New York Academy of Medicine reveals how backward our public hospitals are in the important detail as compared with European institutions. When the Allgemeines Krankenhaus of Vienna can show 1866 autopsies in a year out of a total death rate of 1867, (99.9 per cent) the record of Bellevue Hospital of 11.6 per cent. looks sickly in comparison. Some American institutions make a better showing; thus Johns Hopkins Hospital gives a percentage of 62.6 and San Francisco City Hospital, 45.1. Other institutions make a still poorer showing than Bellevue.

Five cases are given by the committees in explanation of our pitiful results: (1) Adverse public opinion and prejudice, which, it is claimed, are stronger in this country than abroad; (2) the existing law, giving the next of kin the right to refuse an autopsy; (3) undertakers and burial societies; (4) the negligence of the hospital authorities in not procuring a signed permit from the nearest relative of every patient admitted; (5) the anatomical department of medical schools in rejecting bodies for dissecting purposes that had been previously "posted," thus com-

pelling the undertaker, who has the contract of burying the unclaimed dead, to refuse post-mortem examination.

How do the Colorado hospitals rank in the matter of autopsies? Private institutions, of course, are more or less restricted in this regard. Some of the sanatoria for tuberculosis present fairly good records. The best criterion, however, for a proper estimate, both as to capacity, the death rate and the number of possible autopsies, is the City and County Hospital of Denver. Be it said with shame that our state is far behind the poorest of the list published by the committee. Out of 514 deaths in 1912, only eighteen came to autopsy—a post-mortem rate of 3.5 per cent. This is certainly a most deplorable state of affairs. With this wealth of scientific material, only one autopsy in three weeks. *Hinc illae lachrymae.*

The causes of this inactivity in post-mortem investigation are not quite the same as in this region as those assigned by the committee. We have, of course, the identical struggle against prejudice and superstition, but not to the same extent as in New York, with its larger in our population. In our experience, the native-born are more easily persuaded to grant an autopsy than the immigrant class. Abroad the hospitals are given better facilities by state regulation rather than

by enlightened public opinion. Nor should we blame the undertaker whom we have always found willing to co-operate with the physician who is seeking a post-mortem examination. In fact, the former, by the exercise of tact and diplomacy, more frequently receives the coveted permit than does the plea of the attending physician.

Whether the County Hospital in the present state of public opinion can demand from the next of kin, prior to the administration of a patient, authorization for an autopsy in the event of death, is very questionable. The recommendation of the committee to interest the public in this important matter through the press and other agencies is most excellent advice. To carry out any beneficent measure we must have the people behind us.

The old-time policy of our profession to withhold matters medical from the laity is rapidly giving way to the new tactics of publicity. Through articles in the press and by the publication of leaflets and holding public lectures it will be easy to demonstrate to the voter that the progress of scientific medicine is absolutely dependent on the facilities for post-mortem examinations. A campaign of this kind will eventually bring about legislation making it compulsory to hold autopsies on every case that dies in a public institution.

Before we come to the public, however, with this request, we must first clean our own premises. Have we, as physicians, always exhausted every effort to verify our diagnoses at the autopsy table? How often the mark is missed is revealed in Cabot's well-known tables of percentages of correct diagnoses.

In an endeavor to find the causes

for the relatively small number of autopsies at the County Hospital, the lack of interest shown by the staff was given as the excuse. With all the obstacles placed in our path by adverse legislation, it is still possible by the employment of diplomatic measures to hold post-mortems in over half of the cases. If the internes do not evince the proper interest and the hospital management does not see the autopsies are held as part of its routine, the fault lies in a great degree with the members of the visiting staff who do not always insist on it, and occasionally even neglect to attend the post-mortem when they are called. The staff must take the initiative in this matter and encourage the hospital authorities in carrying out this essential detail of its medical department.

In private practice, too, scientific medicine will be greatly advanced by the endeavor to secure autopsies.

Virchow truly has said that for medicine to be an exact science we must learn to think anatomically. It is only through autopsies that "Death rejoiceth in succouring Life." —Editorial in Colorado Medicine, September, 1913.

NUMBER OF MEDICAL GRADUATES.

The number of medical college graduates for the year ending June 30, 1913, was 3,981, a decrease of 502 below 1912, a decrease of 292 below 1911, and a decrease of 459 below 1910. The total this year is 1,766 less than in 1904, when the largest number were graduated. The percentage of graduates to matriculants was 23.4 this year, as compared with 24.7 in 1912 and 21.6 in 1911. The number of graduates from the regular colleges was 3,679, or 527 less than last year, 327 less than in 1911

and 434 less than in 1910. From the homeopathic colleges there were 209 graduates, or twenty-four more than in 1912, fifty-seven more than in 1911 and the same number as in 1909. The eclectic colleges graduated ninety-three, or one more than last year, but seventeen less than in 1911 and twenty-one less than in 1910. Of the 3,981 medical graduates, 753, or 18.9 per cent., were reported to hold also degrees in arts or science, as compared with 17 per cent. last year, 16.5 per cent. in 1911 and 15.3 per cent in 1910. Of the 3,679 regular school graduates, 732, or about 20 per cent. were reported to have baccalaureate degrees, while of the hom-

eopathic graduates, twenty, or 9.5 per cent. were so reported, and of the eclectic graduates only one, or less than one per cent. was reported as holding a degree from a college of liberal arts. Of the 753 graduates holding baccalaureate degrees, 139—the largest number—came from Illinois colleges, followed by 99 from New York, 80 from Maryland, 73 from Pennsylvania and 60 from Massachusetts. According to *The Journal of the American Medical Association*, which publishes these figures in its annual educational number, the reports indicate that the number of medical-school graduates is diminishing and the quality is improving.

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EDITORIAL

ROBERT LITTLE BRODIE, M. D.

We clip from the News and Courier of October 3rd, the following beautiful editorial on the death of Dr. Robt. L. Brodie, who died in the City of Charleston October 2d, in the 84th year of his age:

News of the passing of Robert Little Brodie will bring sorrow to many homes in Charleston. Though he was compelled by illness and the fulness of his years to give up some time since his active practice as a physician, there are hundreds in this city who remember as though it were only yesterday his kindly presence at the sick bed and the gentle ministrations which he rendered with so much sympathy and with so much skill. These will remember him always as one of

the ablest and one of the kindest of that company of men who devote their genius and their time to the alleviation of human suffering and to the healing of the sick. The story of his long life is a record of service unselfishly and ably rendered, both in war and in peace; and now that he has gone to his reward, this record remains to guide and inspire those who would follow in his footsteps.

MEDICAL INSPECTIONS OF SCHOOLS.

WE believe there is no single measure which offers greater fields of usefulness in preventive medicine than medical inspection of schools. We believe that England has sounded the key-note of the whole subject in making her medical inspection of

schools the pivotal point around which all public health work revolves.

Indeed why not begin with the child and not only shield him from disease but teach him early how to shield himself and others and thus inculcate the basic principals of public health before he comes into active life?

We wish here to commend the action of the Pickens County Medical Society, a report of which will be found in this Journal, in pledging their support for the bill before the Legislature for the medical inspection of schools.

PREVENTIVE MEDICINE NUMBER.

THIS issue of the Journal is devoted chiefly to preventive medicine.

The prevention of cancer is one of the most urgent problems of today. In this propaganda the readers of this Journal should be foremost for the general practitioners are the ones into whose hands these cases come first. The whole question as we see it today rests largely with the matter of an early diagnosis. In every community there are cases of cancer wandering around from one office to another as was wont to be the case not many years ago with tuberculosis. Many of them fall into the hands of the quack and in certain forms of the disease be it said to our discredit sometimes secure temporary relief.

We feel decidedly hopeful, however, over the situation. At last there are many potent agencies at work toward the same end, the education of the public and the profession as well in regard to the urgent necessity for early investigation of all suspicious cases. Results are sure to follow.

DR. SAMBON'S VISIT TO SOUTH CAROLINA.

PERHAPS no scientist ever received a more cordial reception at the hands of the medical profession of South Carolina than did Dr. Samson on his recent visit to this State. Great honor was accorded to Dr. Samson not only by our people but by the citizens of many other southern states.

A report of the Pellagra Conference at Spartanburg will be found on another page in this issue.

Dr. Samson and the Thompson-McFadden Pellagra Commission spent a day in and around the home city of the Journal and the editor greatly enjoyed their visit. We wish just here to emphasize one phase of Dr. Samson's investigations, and that is the importance of Pellagra as a disease of childhood. We were struck with the remarkable diagnostic ability of Dr. Samson in this regard while we watched him inspect one of our mill schools. In almost the twinkling of an eye he detected cases of pellagra that had escaped the observation of any one hitherto. From this demonstration we cannot but conclude that in our schools today there are many children who have pellagra in a certain though mild form. It behooves every practitioner to bear this fact in mind. It would be germane to say that a medical inspection of schools law shuold go far toward the discovery of many cases of pellagra in our schools.

CANCER.

SEVENTY-FIVE thousand deaths from cancer are reported annually in the United States. In addition it

is estimated that at least this number die from the same malady who are not officially reported. If this be true, our annual death roll from cancer is approximately one hundred and fifty thousand.

The cause of cancer is unknown. the theories of trauma, microbic origin, heredity, etc., all fail absolutely in the essential prerequisites as a universal causation factor.

It is universally agreed that in its first stages cancer is an absolutely local malady, is almost symptomless, and that if recognized and removed then, its further progress ceases entirely.

The late stages are evidenced by tumor, a foul discharge, hemorrhage and pain, and when they become pronounced it is too late for complete removal and the victim must die from the original or recurrent growth.

Advanced cancer should not be operated upon for two reasons, first, late operation does not cure, and second, through its incurability it serves to discredit the benefits of the early operation the only hope of the cancer subject.

Through the reproductive organs of woman she is more liable to cancer than man. The obscurity of the early symptoms, feminine embarrassment, her natural familiarity with uterine hemorrhage and the widespread belief in the abject hopelessness of this disease all tend to engender a fatal procrastination in her.

Statistics show that the operative curability of cancer in America is less than five per cent., while the operative curability of cancer in Germany is between twenty-five and thirty per cent.

To what is this disparagement between American and German statistics due? To one factor alone—the education of the public through the

lay press upon all the facts known in connection with all the phases of cancer.

We must credit Germany with the most marked reduction of the mortality of cancer which the world has ever seen; actually curing by removal twenty-five to thirty per cent. of all cases coming to operation—only those being adjudged cured who have lived five full years after operation without recurrence.

To Dr. Winter of Berlin falls the full credit for this achievement. Fifteen years ago he instituted a cancer publicity campaign both through lay and medical presses whereby the public was informed not once but hundreds of times as to the early removability and late incurability of this the greatest of all scourges. This publicity campaign was one of the most successful in the history of medicine and placed to its credit hundreds of thousands of valuable lives.

There have been a number of attempts in America to establish and promulgate a cancer publicity campaign, but no real effect as yet. The efforts have been spasmodic and have all lacked the weight of authority, and have appeared mostly in the medical rather than in the lay press. A most creditable article appeared in the October, 1912, *Delineator*, but was written by a lay woman and therefore would not impress.

In order that such a campaign might be effective articles should appear frequently in the lay press, should be couched in such language as will be entirely comprehensive to a layman and should have the ungratified and expressed endorsement of a recognized medical society or association. It is evident that such articles written over a non de plume would lack weight and if signed by any individual member of the medical

profession would smack of personal advertisement.

Cancer should be put upon the plane with hookworm, infantile dysentery, malaria and other preventable diseases with regard to education of the public. Every medical society should feel it to be its duty to enlighten its own near public upon this most important subject, and state and local boards of health should periodically issue official bulletins relative to the early removability of cancer just as they are now doing in regard to many less dangerous and far less fatal maladies.

Briefly state some of the points to be stressed in such bulletins are these:

That the early stages of cancer are almost symptomless and that extremely close observation is necessary to detect it.

That age is a strongly predisposing causation factor and this predisposition is quadrupled after the age of forty.

That injury or trauma of any sort is often the starting point of cancer.

That ninety per cent. of all tumors of the breast degenerate into cancer.

That an unrepaired lacerated cer-

vix frequently becomes the site of cancer.

That all mild and long continued irritations such as a sharp tooth, a rough pipe stem, or a poor fitting alveolar plate predispose to cancer.

That irregular bleeding or a foul discharge from the vagina near, during or after the menopause are dangerously suggestive of cancer and should be investigated.

That when pain and hemorrhage occur in cancer it is probably too late for operation to cure.

That cancer in the early stages is entirely removable, but not curable.

That there is *no* such thing as palliative treatment of incipient cancer.

And finally, that late ineradicable operation is a stigma upon the preventive specialist, the physician and the surgeon alike, and a closing tragedy in the life of the poor sufferer who pays his good money for it.

At the next meeting of the State Medical Association I will offer a resolution looking to official action of that body along the lines above set forth.

A. B. KNOWLTON, M. D.,
Columbia, S. C.

ORIGINAL ARTICLES

EXTRA UTERINE FULL TERM OPERATION RECOVERY.

*By Rob't T. Ferguson, M. D., Gaffney, S. C.

Knowing that extrauterine at full term is comparatively rare. I desire

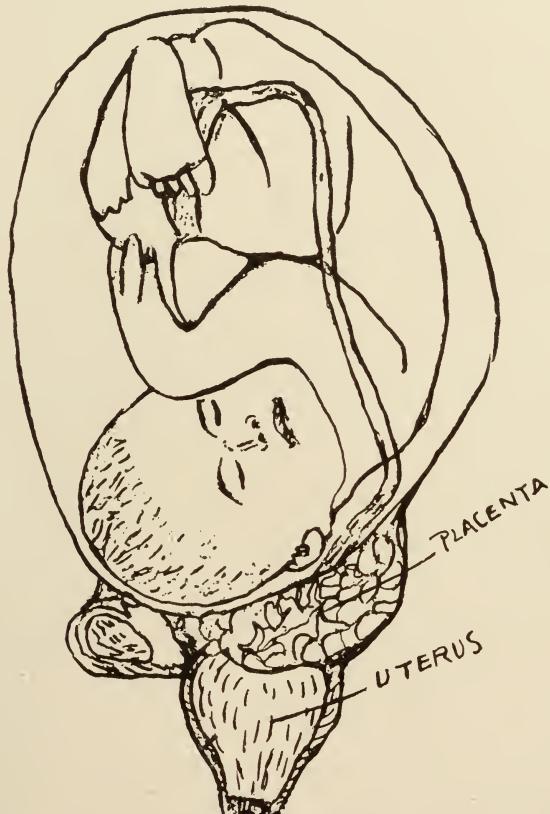
to report this very interesting case.
History:

Patient, Minerva M., colored, age 20, small frame, 5 feet 3 inches tall, has had four miscarriages and has never given birth to a living child. Her mother died of tuberculosis, otherwise her family history is negative. No history of syphilis was obtainable. Saw patient first time

*Written for the Cherokee County Medical Society.

June 11, 1913, with the following symptoms: Pains simulating labor pains; temperature 103 and pulse 130. Figuring from her last menstrual period it was the proper time for her to be in labor; abdomen very large—excessive quantity of amniotic fluid and on pulsation a large floating body

was discovered which I took to be a dead foetus. She had felt foetal movements regularly through the eighth month. Since then they had ceased. She had not felt well for four weeks prior to the day I saw her. Vaginal examination showed an elongated cervix with no dilation.



REPRESENTING UTERUS, PLACENTA AND FOETUS AS THEY OCCURRED AT OPERATION.

I advised immediate removal to the hospital for a more complete examination and the necessary operation. She was brought into the hospital early next morning in a wagon over twelve miles of rough roads. I then made an examination under general anesthesia, after dilating the cervix, passing my entire hand into the uterus finding it to be empty

though feeling the placental tissue in the fundus. The diagnosis was then easy with the previous history of foetal movements, and I opened the abdomen and delivered a dead and macerated foetus of apparently eight months. A large quantity of nasty yellowish, foul smelling fluid was also allowed to escape. As the sack was firmly adherent in every

direction it was impossible to deliver the sack unruptured.

The sack was then flushed out with hot bichloride solution 1-1000. Examination showed that the placenta was attached to the fundus of the womb; in fact, the placental tissue had been felt with the hand in the womb. Pregnancy had taken place in that portion of the tube which passes through the walls of the uterus causing what is termed interstitial tubal pregnancy. All of the uterine muscular fibres having been displaced upwards there was nothing left between the growing placenta and the inside of the uterus except the uterus mucosa. The left ovary was spread out over the sack and destroyed. The patient's condition gave no choice between operations and a complete hysterectomy was done as rapidly as possible. Her condition when placed on the table was pulse 130 and temperature 102. After completing the hysterectomy the sack had to be separated from its adhesions and this had to be literally torn from every organ and viscera in the abdominal cavity, liver, stomach, spleen, omentum, large and small intestine, etc., and it was also firmly adherent to every part of the parietal peritoneum, so much so that the peritoneum had to be torn off to separate the sack from the abdominal wall. The abdominal cavity was then washed out with several gallons of hot normal saline and the abdominal incision closed with through and through silkworm-gut sutures, leaving two large iodoform gauze drains in the lower angle of the wound reaching into the culdesac. The patient was only moderately shocked and was not even nauseated from the anesthetic. The patient made an uneventful recovery and is now, three months after operation, doing her

own house work and enjoying good health.

WOOD ALCOHOL.

*By C. W. Kollock, M. D. Charleston, S. C.

I feel that I have been negligent in not bringing this subject to the attention of the Society at an earlier date. It is astonishing how often a matter of vital importance remains unnoticed until some grave occurrence suddenly brings it to the attention of the public when at once is heard on all sides, why was this not known before? Wood alcohol has been in use for some years; it has been and is handled by all who deal in paints, drugs, etc., with no special care as to its properties as a poison. It is sold to any one who wishes to purchase it without any warning that it is a deadly poison (even in comparatively small quantities) that it may cause blindness and that it can be taken into the system by drinking, inhaling and by absorption through the skin (when used for rubbing or bathing). It is astonishing, therefore, that a liquid that is so extensively used, so commonly sold should be so little known by the general public and should be permitted to be sold by any one without a word as to its dangers by those who should and do know better.

Wood alcohol, known also by the names wood spirits, cologne spirits, colonial spirits, columbian spirits, and methyl alcohol is obtained by the destructive distillation of wood fibre. It has in the crude state a nauseous taste and odor, a specific gravity of 0.7995 and boils at 55.10 C. It mixes freely with water, ether and

ethyl alcohol. In the crude state there could be no danger of any one drinking it but the rectified spirits, as now made, and sold freely to any one, differs but slightly in odor and taste from the grain or ethyl alcohol and not at all in appearance. Wood alcohol in the refined state is not only one of the most dangerous poisons on the market but one about which the great majority of persons (including dealers) are absolutely ignorant.

Under the name of columbian spirits it is sold by druggists with, perhaps, the label "for external use only," but with no word of its being a deadly poison. It is used for fuel and lighting purposes and often in bathing and rubbing the body. The toxic effects may be manifested by drinking, inhaling and by absorption through the skin. The ingestion of as small a quantity as a teaspoonful may cause blindness and death, while at times a much greater quantity may be taken without apparent injury. It is reported that recovery took place in one case after a half pint had been drunk. Such cases are rare and may possibly be due to dilution with water. Its effects by inhalation are more insidious but have been fatal in several cases and authentic cases of poisoning have been caused by rubbing the body with it after a Turkish bath. Its cheapness tempts many to its use who are ignorant of its fatal effects and for the same reasons it is also used by unscrupulous dealers to adulterate various liquors and as a substitute for grain alcohol, as a menstrum in the preparation of extracts, essences and other pharmaceutical preparations." It has been shown to be an ingredient of the cheaper wines, brandies and whiskies. Gruening (a prominent specialist of New York) has recently

had samples of such products analyzed and found that they contained from twenty-four to forty-three per cent. of methyl alcohol. It has been used freely in the manufacture of cologne spirits, Florida water, bay rum, witch hazel and other toilet articles. It is often found in Jamaica ginger, lemon extract, essences of peppermint, cinnamon and capsicum ('hot drops'). It is a well known ingredient of many proprietary and patent medicines. It is also the chief constituent of cheap 'burning fluids' sold for use in the chafing dish and the vapor bath cabinet." It is also used to fortify mild drinks such as ginger ale, ginger beer and bottled cider. A case of total blindness was caused by drinking one bottle of "fortified cider." A case of partial blindness was caused in a worker in the manufacture of cement for China ware in which wood alcohol is used. He was employed only one hour a day and yet so great was the poisoning that his vision was with the greatest difficulty restored after a prolonged course of negative galvanism. It is used by painters in softening shellac and in cleaning fluids but they often seem to acquire an immunity to it. It is used in shellacing beer vats which have only small openings at the top and one near the bottom which is just large enough for a man to crawl through. While working in these it is customary to pump in fresh air with a dynamo and to keep the men there but thirty minutes. Two deaths occurred in the vats because fresh air was not pumped in and another man died because he was allowed to rest but twenty instead of thirty minutes in the fresh air. In two cases vision was partially affected by varnish used to polish lead pencils in a factory where the ventilation was poor. A woman was grad-

ually made blind by drinking paregoric that had been made up with wood alcohol. In my own practice I have seen two cases of blindness caused by drinking wood alcohol. The first was a man who had been on a prolonged spree and being unable to get more whiskey drank (according to his own account) about a teaspoonful of wood alcohol. The sight began to fail very soon after and he became totally blind and has remained so. The second was a sailor on an English tramp ship who drank a small quantity, probably at different times. He eventually became blind though for a time there was a slight improvement in the vision.

From the Budapest letter in the Journal A. M. A., August 16, 1913, we have the following:

Methyl Alcohol.

Some few years ago the medical profession was alarmed by the report that rum produced blindness, and as a consequence the valuable and tried stimulant, tea, fell into disrepute here (in Hungary, tea is drunk with rum). After a time equally bad reports came of other brandies and liquors, the sight being affected in all cases. In some instances death followed, the lethal effects being found to follow the many compounds placed on the market to give the flavor of old brandies to raw cheap spirits. Examination having been made as to the source of poisoning, it was found by Professor Telletar that the toxic agent was methyl alcohol (wood alcohol) which is manufactured in Hungary in great quantities for industrial purposes. Since that time there have been several poisonings due to methyl alcohol, which would formerly have perplexed the doctor. It was found, for instance, that even the prolonged working with paints containing methyl alcohol may cause optic atrophy simply by the evaporation of the spirit. In a cabinet making factory, where methyl alcohol is

used almost continually, several workmen were found to suffer from incipient atrophy. The district medical health officer therefore ordered the factory doctor to examine the sight of all workmen every month and report the results to him. Dr. Doifi, chief medical inspector in Budapest, bought bottled liquors in some fifty brandy shops and investigated the specimens as to methyl alcohol content. He found this poisonous substance even in a few of the most expensive liquors. The Hungarian law prohibits the use of methyl alcohol in the preparation of foods, or any substances, medicines or otherwise, intended for internal use. It is hoped that the attention which Doifi's investigation called to the subject will result in a new legislative prohibition of its use in the industries too, or at least the testing of the sight of workmen at regular monthly intervals in industries in which methyl alcohol is indispensable.

"An analysis of the cases which have been investigated by the Committee (Committee on the Prevention of Blindness of the New York Association for the Blind) and the accounts of over 500 cases, recorded in medical literature, brewers' and druggists' journals, and reports of health departments, have shown that the drinking of wood alcohol, either clear or in adulterated liquors, drugs, tinctures and essences presents one of the serious aspects of the wood alcohol problem, while the inhalation of the fumes of this poison in varnish preparation constitutes its other chief danger."

SYMPTOMS AND EFFECTS OF POISONING.

It causes the most violent general toxemia and visual disturbance. de Schweinitz says, "Briefly the symptoms are these: Intense gastrointestinal disturbance if the dose is not too large, followed, if it is greater, by severe headache, giddiness and coma;

rapid failure of sight, which may improve, but soon relapses; contracted visual fields and usually absolute central scotomas (blind spots), and finally total or nearly total blindness. Ophthalmoscopically, there have been noted blurring of the edges of the disc, positive neuritis (rare), and complete atrophy without signs of preceding inflammation. In many instances there is a diminution in the size of the retinal vessels. Occasionally there is decided pain in movement of the eyes or on pressing them backward into the orbit. The prognosis of methyl alcohol poisoning is most unfavorable, not only quoad visam but quoad vitam. Not only may the poison enter in the usual manner through the stomach, but blindness has resulted by inhalation, aided by absorption, as the author has shown, through the cutaneous surface. A few examples of restoration of nearly normal vision have been reported. The blindness depends, as Holden and Birch-Hirschfeld have shown, upon nutritive changes in the ganglion cells of the retina. It is possible there may be a simultaneous action on the ganglion cells and the tissues of the optic nerve (Gifford). *Treatment:* Zeigler (S. Lewis) says, "The stomach should be emptied at once. In the early stages permanganate of potash may prove valuable for its oxidizing power on the contents of the stomach. Pilocarpin will aid in carrying off the poison. Thyroid extract in small doses often has excellent alterative effect. Hyoscin hydromate will control both the nervousness and the perverted lymphatic action. The iodids or Donovan's solution will prove of value in eliminating the poison during the chronic stage. Dia-phoresis may also be continued dur-

ing this period. Strychnin has been used for its tonic effect, but without any marked results." "To revascularize the disc and restore the lost function of the nerve, no measure can equal the stimulating effects of negative galvanism. * * * * * This should be administered with great care, sixty volts being passed through the main shunt controller, while the amperage is reduced to one milliampere with a secondary controller, the current being passed for ten minutes, and then reduced to one-half a milliampere and passed for a second period of ten minutes. These seances are continued on alternating days, as a rule. I believe that electricity is the most efficient therapeutic measure we have for the milder cases of toxemia, where there has not been complete destruction of the nerve fibers. If this has already occurred, as in my case of poisoning from bottled cider, galvanism will have no effect whatever."

My first case was not seen by me until a month after it occurred. He was totally blind and the optic nerve heads were very white and without any sign of preceding neuritis, but the retinal vessels were not as small as the condition of the nerve would indicate. For that reason I pushed the treatment with pilocarpin, potass. iodide and strychnin heroically for nearly two months but with no improvement whatever. The second case was under the care of Dr. Sosnowski, at the Roper Hospital. He was not quite blind and improved for a short time under treatment but later relapsed and became blind. A rather unusual condition existed in his case in that there were signs of a mild optic neuritis and one or two very small retinal hemorrhages near the optic disc.

THE PREVENTION OF POISONING BY WOOD ALCOHOL.

From what has been said it is very evident that there are but two courses to follow for the prevention of poisoning by wood alcohol. One is to educate the people as to its dangers and the direful results that may follow its use in any way whether by drinking, inhaling or absorption through the skin.

The second is to safeguard its sale in the most thorough way and to severely punish those who use it as an adulterant for any purpose.

"The adulteration of liquors is now prohibited by law; in New York State by the Liquor Law and in New York City by the Sanitary Code of the Department of Health. That cases of blindness and death still occur from drinking liquor adulterated with wood alcohol may be attributed in part to the smallness of the fine imposed, usually amounting to \$150, which is not prohibitive, instead of the \$500 which the law allows and partly to the fact that saloon keepers seem ignorant of the dangerous effects of wood alcohol when taken internally; and also because not all containers of wood alcohol in every form are labelled poison.

"Wood alcohol is required to be labeled 'Poison' by the State Pharmacy Law of New York, and also by the laws of seven other states, but the New York law does not include *wood alcohol under any name or in any mixture*, as is the case in two of the other states. The sale of wood alcohol for internal use is prohibited by the Sanitary Code of New York City, which requires that 'no person or corporation shall have, sell or offer for sale any food or drink which contains methyl alcohol (commonly known as wood alcohol); or any preparation or mixture of any kind what-

soever containing methyl alcohol intended for internal use by man.' Four states prohibit the use of wood alcohol for external application to the human body.

"It is interesting to note that only one state, Montana, makes any reference to the danger of inhaling the fumes of wood alcohol. Montana's poison law says, 'The label hereby required to be placed upon wood alcohol (in addition to the word poison) shall contain the following warning, The fumes of wood alcohol burned in a close room, if inhaled, are injurious to eyesight, often producing total blindness.'

It was found in New York that wood alcohol and Columbian spirits were being sold in drug stores for fuel and lighting purposes and that while the wood alcohol was labeled poison the Spirits were simply labeled "For external use only." Also that wood alcohol was sold in some grocery stores in loose quantities, being put in any kind of container, frequently old beer bottles, and without any label whatever to warn those ignorant of its poisonous qualities. It is also sold in retail paint shops and frequently without label.

The New York State Board of Pharmacy, which has the power to deal directly with poisons, requires that "it is unlawful for any person to sell at retail or to furnish * * * methyl or wood alcohol * * * without affixing or causing to be affixed to the bottle, box, vessel or package, a label with the name of the article and the word poison distinctly shown and with the name and place of business of the seller all printed in red ink, together with the name of such poisons printed or written thereupon in plain legible characters."

"In Massachusetts during 1911 there were 13 convictions under the

Food and Drug Law for not labeling wood alcohol, properly. The Massachusetts law, in addition to prohibiting the adulteration of drugs with wood alcohol, requires that 'whoever, himself, or by his servant or agent of any other person, sells, exchanges or delivers any *wood alcohol, otherwise known as methyl alcohol, under or by whatever name or trade mark the same may be called or known,* shall affix to the bottle or vessel containing the same a label bearing the words, 'poison, not for internal use,' in red letters of uncondensed gothic type not less than one-fourth of an inch in height, and the same words, 'poison, not for internal use,' in stencilled letters of similar gothic type of a size not less than three-fourths nor more than one and one-half inches in height for use on barrels and kegs. Whoever violates any provision of this section shall pay a fine not less than fifty nor more than two hundred dollars for each sale in respect to which the violation occurs."

The following resolutions were adopted by the New York Committee on the Prevention of Blindness:

"Whereas, there occur annually a number of cases of death and blindness in the state of New York, as the result of drinking, and inhaling the fumes of wood alcohol; and

Whereas, It is believed that many of these cases were due to ignorance of the dangerous nature of this poison, and

Whereas, Although wood alcohol is required by the New York State Pharmacy Law to be labeled Poison, in its refined form and under the name of "Columbian Spirits," it is generally sold by druggists without such label, and wood alcohol is often sold by painters and grocers in con-

tainers bearing either no label at all or a misleading label; and

Whereas: No measures have been taken to require adequate ventilation for the protection of workmen against the danger of inhaling the fumes of wood alcohol; therefore be it

Resolved: That this Committee endeavor to secure measures which shall provide that every container of wood alcohol under any name shall be labeled poison; and that adequate ventilation shall be required in all industries in which the fumes of wood alcohol constitute a menace to the sight and life of workmen; and be it also

Resolved: The educational work be undertaken among tradesmen and the public generally; and also that co-operation be sought with the other organizations having the same purpose in view, to the end that definite measures of reform may be secured to correct the evils connected with the manufacture, sale and use of wood alcohol."

Much of the above has been quoted from the Fourth Annual Report of the Committee on Prevention of Blindness of the New York Association for the Blind and shows the importance with which this matter is viewed in other states and what has been and is being done to lessen the dangers from this most potent poison. It behooves us also to be up and doing something for about us we have a people who are likely to suffer from the dangers of wood alcohol. In this City and State where the illegitimate sale of liquor is rampant, where there are hundreds of low dives that tempt the ignorant and vicious it is more than probable that the liquors are adulterated and what is cheaper for this purpose than wood alcohol which sells at 80 cents a gal-

lon? I have for sometime noted the increasing number of cases of atrophy of the optic nerve among the negroes in this vicinity, and though many of them are infected with syphilis I have been unable to satisfactorily account for it in that way. While I cannot positively assert that the cases of atrophy have been caused by drinking liquors that have been adulterated with wood alcohol there is good ground for the suspicion. It would seem that the first thing to do is to pass a law requiring that all containers of wood alcohol shall be labeled Poison and that the label shall also bear the name of the dealer from whom it was purchased; that this law shall apply not only to wood alcohol alone but to all preparations that contain wood alcohol in any quantity whatever. Further that a suitable fine or term of imprisonment, or both shall be imposed upon those who are found guilty of breaking the law. In this State we are not paying proper attention to the preservation of sight and very many persons are blind from ignorance and criminal neglect. These persons are for the most part non-producers and have to be supported, if not by their relatives, by the city, county or state, so that in the end it falls upon all through the taxes. It is a short-sighted policy for a community not to safeguard the health of its inhabitants and especially in one like this where there are already so many who have to be supported by the general public.

"TETANUS PROPHYLAXIS."

*By G. A. Neuffer, M. D., Abbeville, S. C.

The purpose of this paper is to bring to your attention, and impress

*Read before the South Carolina Medical Association, Rock Hill, S. C., April 16, 1913.

upon your minds the great importance of administering tetanus anti-toxin in all cases of suspicious wounds.

In order to come to a better understanding of the matter it might be well, to study, first, the nature of the tetanus germ; and the character of wounds that are suspicious. The habitat of the germ is in the earth, and except in wounds, earth is the only place where it is found. It is only found in the upper layer of the soil. Sometimes the soil in certain neighborhoods becomes infested and produce local epidemics of tetanus. This was notably the case just after the war with Spain, when the soldiers were quartered at Montauk Point, N. J., an epidemic of tetanus broke out among them, and upon investigation it was found that the soil was infested with tetanus germs.

The germ is frequently found in stables, this is so common that among the laity the belief prevails that there is a close connection between lock-jaw and the horse.

The organism grows better when the oxygen of the air is excluded from it.

The incubation period is about one week, and the disease runs a rapid course and is nearly always fatal.

Wounds of the hands and feet are more prone to develop tetanus than of any other parts of the body.

Punctured wounds—gun shot wounds, of the hands and feet, more particularly. Crushing of the extremities. The rusty nail in the foot, splinters, wounds to persons employed around stables.

Dirty wounds—Wounds from the toy pistol. All of these are wounds that should be classed as suspicious, and treated accordingly.

We now come to the prophylactic treatment of these wounds, in order to prevent the development of teta-

nus; for this I assure you is much easier than to cure it after your patient has it. Every wound should be thoroughly disinfected the wound should be laid open, all dirt, foreign bodies and necrotic tissue should be removed, and the entire wound surface disinfected and continuously bathed in a 1-5 per cent Carbolic Acid solution of 10 per cent Tinct Iodine solution. The use of the actual cautery, or strong caustic substances, as for example pure carbolic acid, is not to be recommended, because the eschar which forms over the wound surface will prevent the oxygen of the air reaching the tissue and thus bring about conditions favorable to the growth of the organism.

Simultaneously with this treatment of the wound, 1,500 units of tetanus anti-toxin should be administered. Tetanus anti-toxin is harmless, it has no bad effect on the human system. Its curative powers are very slight, (and should it be used for this purpose, it should be given intravenously.)

Its power of immunizing appears to be absolute. In a special investigation made by the authorities of the "Journal of the American Medical Medical Association" they were unable to discover a single case in which a person who received the anti-toxin, subsequently developed tetanus.

The injection should be made directly into the muscle tissue because from here absorption is most rapid. The best sites for the injection are the back of the thigh or hips.

Of course it is only necessary to remind you that all antiseptic precautions should be used when giving the injection. Let me impress upon you once more to give the anti-toxin at once, time is more important in

this, than in any other disease. The protective influence of anti-toxin lasts but a few days, and while in the majority of our cases one dose will suffice, still governed by the temperament of our patient and the character of the wound we should not hesitate to repeat the dose every three to five days until we feel that the patient is safe.

In order to impress the object of this paper more forcibly upon your minds, I will relate briefly a few cases occurring in my practice:

CASE 1.

George Martin, negro, aged 27.—I arrived at this man's log cabin about dark of a cold winter day. This was some ten miles in the country. He had a gunshot wound of the left arm, the humerus was badly shattered and the wound contained many small shot, wadding and pieces of bone. The wound was cleansed as well as could be done under the circumstances, and dressed. In a day or two I had him brought to town and amputated just below the shoulder. He got along nicely for about four days, when suddenly symptoms of trismus appeared, then a general tetanus set in, resulting in his death. I did not have the knowledge of anti-toxin then that I now have, and it was not given to him. Such a case occurring now would get an injection of anti-toxin before I did anything else for him.

CASE 2.

Mose Wardlaw, negro boy, age 14. While out rabbit hunting this boy accidentally shot himself in the heel. About a week later I was called to him, found a dirty neglected wound, and beginning tetanus. I administered anti-toxin and treated the

wound as outlined in this paper. He made good recovery.

CASE 3.

W. A. O'Bryant, white, aged 40.—This man was proprietor of a livery stable, and a veterinary surgeon of considerable practice. He had received a pistol wound, the ball passing entirely through his left hand. I treated the wound and gave anti-toxin at once. Recovery.

CASE 4

Adam Ramey, white, aged 25, farmer.—On the 15th of November, the first day of the open season, he went out with his gun, the gun went off accidentally, while his left hand happened to be over the muzzle, result all four fingers torn off, leaving a ragged, ugly wound. Not satisfied with this, when I reached him the hand was bound up in horse manure. There could be no more favorable conditions for the development of tetanus than this man presented. I treated the wound as outlined in this paper, and gave anti-toxin. Recovered.

CASE 5.

Timmer Howie, white, aged 25, locomotive engineer.—Just as this man stepped up on his engine one night he was shot by a negro tramp. The bullet entering on the palm surface, at the base of thumb of the left hand, passing out of the back of the hand. The bones of the hand were comminuted. Treating the wound and anti-toxin gave him a good recovery.

CASE 6.

Miss Mary B. White, aged 16, school girl.—This young lady had her left hand caught in the electric fan which propelled the hot air in the heating plant of the school building.

The hand was badly lacerated and the bones crushed, in dressing the wound it was necessary to remove a large quantity of the bones of the hand, and really it seemed impossible to save the hand. Anti-toxin was of course administered and she made a remarkable recovery.

Discussion.

Dr. J. J. Watson, Columbia, S. C.

Mr. President, we are indebted to the Doctor for drawing attention to this preventive measure, and if all patients with such wounds were immunized we would have no tetanus.

One case that, to me, is of extreme interest: A boy nine years old had a perforating wound of the foot from a nail, and after treating it aseptically he was immunized with 1500 unit of tetanus anti-toxin, and later a second dose of 1500 units. About four hours after the administration of the tetanus anti-toxin he had severe cramps, that required large doses of paregoric to relieve him. During that night I was quite anxious about the boy, but on the morrow he was perfectly well.

I would like to ask if any gentleman here has had a similar experience from the administration of the second dose of anti-toxin. The pain was so severe he would cry out.

Dr. J. H. McIntosh, Columbia, S. C.

For the prevention of tetanus I would suggest a far simpler procedure. If with every infected or punctured wound or with every crushing wound the doctor would merely inject it thoroughly with Tincture of Iodine (full strength) he would never have any use for tetanus anti-toxin. I have tried that for twenty years and have never had but one case develop, and in that case I, unfortunately, did not use the iodine.

Dr. Harmon, Columbia.

My position is that every wound that we have any doubt whatever about we should use tetanus anti-toxin. A great many wounds of every description—gunshot wounds, wounds received on farms and elsewhere—no one can tell which case will develop tetanus and which will not, and the

thing to do is to play trumps and never fail to give anti-toxin. It is the only treatment for tetanus to prevent it. We have no other treatment. It is true a few cases get well, but they get well of themselves, and not with any treatment we can give.

Dr. Wannamaker, Cheraw.

I once saw a patient who had suffered severe abdominal cramps and was operated upon for appendicitis. A few days later this patient developed tetanus, which was attributed to the use of infected catgut.

I wonder if that catgut, like the Doctor's patient, had been bound in stable manure.

Dr. Theodore Maddox, Union.

Any wound on the body should not have moisture applied. If you take a wound on the surface of the body and cleanse it with alcohol, benzine, chloroform or ether and apply your tincture of iodine as has been suggested here, there will rarely be occasion to use anti-toxin. The moisture not only furnishes a medium in which the bacteria may grow, but it closes the pores of the tissues and prevents the entrance of the iodine therein; hence you have your bacteria growth.

Dr. McGinnes, Charleston.

I would like to mention here that the Doctor mentioned anti-toxin. One dose of anti-toxin, if given at the time the infection occurs, will immune; and also there is no use to repeat the dose. Then, again, we know horse manure contains a lot of tetanus organisms. Experimentation of lower animals shows that iodine, in any strength, is worthless. These animals can be treated with any strength iodine, and as soon as the scab forms on this wound and stands ten days, the animal develops tetanus, without antitoxin.

Dr. Griffith, Columbia.

In regard to tincture iodine for the prevention of tetanus, I believe in treating all dirty wounds with tincture of iodine. I had a case of gunshot wound about a year ago, in which the anti-toxin was not used and the tincture iodine was applied and the man developed tetanus and died.

Dr. Neuffer closes.

I wish to thank the members who have discussed this paper. That proves that it

has directed the attention of the larger number of practitioners who are present to this very important subject, and I trust it has impressed it upon their minds sufficiently that when they return to their practice they will begin to use the anti-toxin in every case of suspicious wounds.

In regard to the application of iodine or anything else, that was a point I wished to impress upon you, and I am very glad that Dr. McGinnes has backed me up in the position I took: that the presence of oxygen was against the growth of the germ; therefore, when you apply the tincture of iodine as a caustic, the scar forming over the wound produces the very condition which is favorable to the growth of the germ. That was so in Dr. Griffith's case. So I don't want you to go to your homes with the idea that you can swab it out with iodine or carbolic or anything else and not use the anti-toxin, and go to bed and sleep with a clear conscience, for you will have the experience of a great many in developing tetanus. And where is the sense in not using the anti-toxin?

To some of you who are railroad surgeons: If you have any such wounds as

I have described, or any other wounds which may be suspicious and you use simple iodine and later on that case develops tetanus and dies, when the case comes into court you may rest assured that the attorney for the plaintiff—well, I see you know the rest! (Laughter.)

Dr. McGinnes brought out another point: the repetition of the doses. You know I told you one dose was sufficient, and it is owing to the condition of the wound and the temperament of the patient you should be governed by. In my experience one dose has been sufficient. I do not know exactly why that is, because most authorities tell you to repeat it, but Dr. McGinnes enlightened me on that, where he says if one dose is given immediately upon the receipt of the injury (I suppose the first day or the day after) and that was my practice in those cases—the one dose was sufficient. So that explains that point to me. If you put it off two or three days or a week, you will probably have to use more than one dose.

I thank you again, gentlemen, for your very full discussion.

MEDICAL INSPECTION OF SCHOOLS.

*By Theo. Maddox, M. D., Union, S. C.

It is not my intention to give you anything new on this subject, but to direct your attention to some of the salient points, thereby opening the way for a thorough discussion of the subject.

It is a well known fact that as a general rule when a thing enters politics and there are to be some hand-outs, the incompetents flock to the front.

Then another injurious factor we have to contend with here, is the pseudo-specialist, with or without a political pull, who imagines that if he can examine the children it will not only make a great impression on the minds of the children, but will likewise affect the parents. And furthermore he can recommend operations and treatments, believing that inasmuch as he recommends them the children will be referred to him. In his greed for gain he fails utterly to see the injurious effects on the medical profession, in that parents will soon imagine that he is simply advising and recommending treatments and operations solely on account of the fee. It matters not how unjust these criticisms may be, the just must suffer for the sins of the unjust.

There are just two kinds of examiners permissible: (a) the physician who gives his whole time to the work, and (b) the teacher.

Just the moment you allow the physician to recommend an operation or treatment and then allow him to do those things and charge a fee therefor, you arouse the suspicions of the parent.

The teacher should be held equally as responsible for the child's physi-

cal as well as his mental welfare. The teacher who could not detect an odor from the body, a discharge from the eye or ears, an eczema, determine if the child can see equally as well from both eyes, and hear equally as well from both ears, is an incompetent and should be relegated to that oblivion which he so justly deserves.

I will read you the proposed South Carolina law, and then the Colorado law which I think is much superior, unless it is for cities which have a large and congested population, where the whole time school physician has a maximum amount of work at a minimum cost to the taxpayer.

The South Carolina bill for the Medical Examination of school children is as follows:

SECTION 1.—The Board of School Trustees of any school or college is hereby authorized and empowered to appoint one or more physicians to act as official medical examiners, hereinafter called school physicians under the term of this act, at each and every public school and college within the State, and provide said physician with all proper facilities for the performance of these duties as such examiner: *Provided*, however, That nothing herein contained shall be construed to require or authorize such appointment at any school or college already employing a regular physician for its school children or students.

SEC. 2.—Every school physician shall make a prompt examination and diagnosis of all children or students referred to him as hereinafter provided, and such further examination as the protection of the health of the public may require.

SEC. 3.—The teachers shall cause to be reported to a school physician for examination and diagnosis every school child or student returning to school without a certificate from the board of health, or where no such board exists a physician, after ab-

*Read before the South Carolina Medical Association, Rock Hill, S. C., April 16, 1913.

sence on account of illness or from unknown cause, and every school child or student who shows signs of ill health or of suffering from contagious or infectious disease shall be so reported, unless at once excluded from the school by the principal or teacher.

SEC. 4.—The school physician shall report to the appropriate teacher the teacher shall notify the parent or guardian of any school child or student who may be suffering with any defect or disease. Whenever a child or student shows symptoms of small pox, whooping cough, diphtheria, scarlet fever measles, chicken pox, mumps, or any other contagious or infectious disease, such school child or student shall be sent home immediately by the teacher, or as soon as safe and proper conveyance can be found, and the teacher or principal shall at once notify the local board of health where one exists: *Provided*, however, That nothing in Section 4 shall prohibit the proper authorities from sending cases suffering from the above mentioned diseases to a hospital connected with an institution with facilities for the care of such diseases.

SEC. 5.—The school physician of every school and college shall separately and carefully examine and test every school child or student in the institution which he serves at least once every school year, and near the beginning of the session as can be agreed upon by the principal, teacher and school physician to ascertain whether such school child or student is suffering from defective sight or hearing, tuberculosis, malaria or hookworm disease, or any other disability or defect tending to prevent the full benefit of scholastic work or requiring a modification of such scholastic work in order to prevent injury to the child or student and to secure the best educational results. The school physician shall notify the teacher in charge of any school child or student suffering from a defect or disease requiring treatment, and he shall keep a physical record of each school child or student in such form as the State Board of Health shall prescribe. He

shall also furnish the teacher a duplicate record to be kept as a permanent record of the school.

SEC. 6.—The State Board of Health shall formulate rules and regulations for the guidance of the said school physician and the board of school trustees shall prescribe a basis of reasonable compensation for said physician, which shall be paid in each school district out of the school funds thereof in the same manner as other school expenses.

SEC. 7.—Any parent or guardian schools or colleges of this State can have said child examined by any licensed physician of this State provided said physician shall furnish the teacher a record as required by this act, this examination when made upon the request of the parent or guardian shall exempt said child from examination by the school physician.

Sections 8 and 9 are of no importance here as they merely relate to previous acts on the subject and the time this act shall go into effect.

Following is the Colorado law:
An Act Providing for the examination and care of children in the Public Schools, and making an appropriation in connection therewith.

Be it enacted by the General Assembly of the State of Colorado:

SEC. 1.—The State superintendent of Public Instruction shall prepare or cause to be prepared, suitable test cards, blanks, records, books, and other needful appliances and supplies to be used in testing the sight, hearing and breathing of pupils in the public schools, and the necessary instruction for their use; and shall furnish the same free of expense to every public school in the state. The teacher or principal in every public school, or where there is no principal, the county superintendent, shall, during the first month of each school year, test the sight, hearing and breathing of all pupils under his charge; such examination to be made by observation without using drugs or instruments, and without coming

in contact with said child; and keep a record of such examinations according to the instructions furnished and make a written report of such examinations to the State superintendent of public instruction as he may require.

SEC. 2.—Every teacher in the public schools shall report the mental, moral and physical defectiveness of any child under his supervision as soon as such defectiveness is apparent, to the principal, or where there is no principal, to the county superintendent. Such principal or county superintendent shall promptly notify the parents or guardian of each child found to be defective, of the child's defectiveness, and shall recommend to such parents or guardian, that such child be thoroughly examined as soon as possible by a competent physician or surgeon with special reference to the eyes, ears, nose, throat, teeth and spine.

If the parent or guardian of such child shall fail, neglect or refuse to have such examination made and treatment begun within a reasonable time after such notice has been given, the said principal or superintendent shall notify the State Bureau of Child and Animal Protection of the facts; *Provided*, however, That whenever it shall be made to appear to the said principal or superintendent, upon the written statement of the parent or guardian of said child, that such parent or guardian has not the necessary funds wherewith to pay the expenses of such examination and treatment, the said principal or superintendent shall cause such examination and treatment to be made by the county physician of the district wherein said child resides; and it shall be the duty of such county physician to make such examination and treatment, and if he be unable to properly treat such a child he shall forthwith report such fact to the county commissioners of the county with his recommendation.

SEC. 3.—The State auditor is hereby directed to draw his order for such sums at such times as the State superintendent of public instruction may require to carry out the provisions of this act. The total expenses

under this act shall not exceed one thousand (\$1,000) dollars in any biennial period ending November 30th.

The circular letter of instructions on the modus operandi of the law is as follows:

The teachers will fill out the blanks in the Teacher's Record Cards as instructed, using the carbon paper to make two copies at the same time; the one marked "principal or county superintendent" is to be sent to those officials, and the other marked "teacher's stub," is to be left in the book for subsequent reference, comparison and summary.

Use a good sharp pointed pencil with force enough to produce clear copies not easily erasable.

If it become necessary to re-record a pupil during the same school year, affix the second stub to the stub of the first record.

The teacher shall place a star in red ink after the names of pupils whom she considers it desirable or necessary to refer for medical attention in accordance with the law, and indicate the reason thereof by a star opposite the number in the margin of the record card where defectiveness is indicated.

The principal or county superintendent will file the teachers' record cards when received with the notice of Parents' Book.

The record cards of pupils whose parents the principal or county superintendent notify are to be attached to the stub of the corresponding notice to parent or guardian, as directed thereon.

The principal or county superintendent will send the notices to parents or guardians in accordance with the law (Session Laws of 1909, page 490) and record same on the record card received from the teachers.

Should the principal or county superintendent require medical care for pupils not advised by the teacher or not require it of any so recommended, he will notify the teacher to that effect with dates of sending notice. In lieu of information to the contrary the teacher will assume that notices have been sent when marked therefor on her record card, and will date

the "reasonable time" allowed for the return of the physician's report from the date of the sending of the record card to the principal or county superintendent.

The physician's report is to be returned to the teacher. If within a reasonable time the physician's report is not received by the teacher or proves to be unsatisfactory; or where in lieu thereof the parent or guardian sends a written statement that he has not the necessary funds wherewith to pay the expenses of such examination and treatment, the teacher will send failure notice (with such written statement if any) to the principal or county superintendent, recording same on the pupil's teacher's record card.

The principal or county superintendent will record the failure notice on pupil's record card and forward the notice to the State Bureau of Child and Animal Protection, State House.

If a written statement of inability to pay accompanies a failure notice, the principal or county superintendent will at once "cause such examination and treatment to be made by the county physician of the district wherein said child resides;" who if unable to treat such child shall forthwith report such fact to the county commissioners with his recommendation. If satisfactory results are not had within a reasonable time, the failure notice, written statement of inability to pay, statement of reference to county physician, etc., with other information pertaining to the case, is to be forwarded by the principal or county superintendent to the State Bureau of Child and Animal Protection.

What constitutes a "reasonable time" will be left to the judgment of the teacher, under the advice and direction of the principal or county superintendent. If, after taking all circumstances into consideration, doubt exists, refer the matter to the Bureau of Child and Animal Protection, with full particulars.

Whatever unpleasant or difficult duty may arise in the enforcement of the law for the examination and care of school children, is laid by the

law, not upon the teacher, the principal or county superintendent or the State superintendent of public instruction, but upon the State Bureau of Child and Animal Protection.

Whenever the State Bureau of Child and Animal Protection receives a failure notice it will at once send its own notice to the parent or guardian requesting compliance with the law, and will, at the same time, notify the teacher of that action.

In most cases a notice from the Bureau will be sufficient to induce prompt obedience to the law. If, however, they still fail, refuse, or neglect, the teacher will send a second failure notice marked "No. 2," to the principal or county superintendent, who will forward it to the State Bureau of Child and Animal Protection at the State House. The date of the second notice is to be recorded also upon the record cards.

When the Bureau of Child and Animal Protection receives a failure notice accompanied by a written statement of inability to pay, etc., it will investigate and assist.

When the Bureau receives a second failure notice it will send an officer who will first consult with the teacher, if possible with the principal or county superintendent, and acting under the direction of the bureau will take charge of the case.

In most communities there is at least one local volunteer officer of the Bureau of Child and Animal Protection, fully empowered to act, and to whom the teacher might be disposed to report cases, unless otherwise instructed. But in order to obtain accurate records and for obvious reasons, teachers are instructed to report all cases in accordance with the directions herein prescribed.

Teachers will record the results of the law enforcements by the State Bureau of Child and Animal Protection upon the pupil's record card.

The teacher will fill out the teacher's summary blanks and mail to the county superintendent at the end of the fall term and at the end of the school year.

The county superintendent will fill out the county superintendent's summary blanks and mail to the State

superintendent at the end of the fall term and at the end of the school year.

Record card books and all other supplies for the execution of the provisions of the State "For the Examination and Care of School Children," or any part of them are to be sent upon demand to the State superintendent of public instruction.

Teacher should cross out words not needed and fill in blanks when occasion demands.

All unused blanks should be returned to county superintendent's office.

Instructions on Sight, Hearing and Breathing Tests.

To Superintendents, Principals and Teachers:

The examination should be made by the teacher under whose immediate observation the child is to be, and under the direction of the principal, or where there is no principal, of the county superintendent.

It is to be made during the first month's attendance of the child during each school year.

Every child must be examined.

The examination must be made privately and singly.

The record blanks must be filled out with the data obtained, and kept on file. The duplicate is to be sent to the county superintendent at the end of each school term and upon request of the State superintendent.

The vision charts, record cards, notice to parents or guardian, report of the physician, circular letters to parents on the care of the teeth, eyes, and cleanliness I shall not mention here, but commend them to you as being superior to those now before our State legislature for enactment.

In considering this subject I am impressed with the following facts well worth considering:

1st.—To provide a way by which all the public school children of South Carolina might be under continuous,

intelligent and interested observation with the view of aiding them to achieve the highest possible degree of physical, mental and moral health, and to provide adequate means for enforcing such attention and care by the parents and guardians as might be necessary therefor.

2d.—To provide such a law without it becoming a burden to the sovereign taxpayer of the State.

3d.—Are the finances of the towns and counties of South Carolina sufficient to justify the employment by them of an all time medical examiner?

4th.—The superiority of the Colorado law when compared with the Bill now before our legislature.

5th.—The excellent showing made in Colorado under the operation of this law during the past three years.

6th.—The great need of a law for the protection of the child as well as the animal, of the field and the birds of the air.

Discussion.

Dr. Weston Columbia.

Mr. President: It has been a great pleasure to have heard this paper and I feel that it ought to be generally discussed.

I have been participating in this work ever since the movement was started in this State, for that purpose the efforts that have been made have been persistent but difficult, since there are many in the legislature who not understanding the purpose and objects of the work were disposed to question the motive of those who were agitating the matter. I think, however, that the question has been sufficiently agitated to have disabused the minds of many of the more progressive and intelligent members of that body.

The Bill that Dr. Maddox read has passed the reading of the Senate without a single dissenting vote, which seems to me to argue well for the future of this most important matter. As to the contents of the Bill, I will say it has been prepared with great care, reference having been made to similar bills from many different countries.

This Bill, however, follows closely the Massachusetts law, which is supposed to be the standard of the world, and then submitted to the superintendent of education who has made modifications to suit local conditions.

The most serious objection made recently against the passage of this bill was that it would create a job for physicians. The Medical Association, at its meeting night before last removed this objection inasmuch as they offered to do this work free of charge, a promise that I do not believe will be difficult to get all the physicians to fulfill.

Dr. Williams, Columbia.

Since the Medical Inspection Bill now before the General Assembly has been rather severely criticised, I feel that as chairman of the Committee on Public Policy and Legislation I should give you the facts in connection with this measure. You remember this bill was vetoed by the Governor last year. At the beginning of the session this year I was informed that the reason the Governor refused to sign the bill last year was because one of his friends objected to his children being examined by any physician except one of his own selection. I felt that the members of the House and Senate would feel that this was a reasonable demand, so an amendment, giving a parent the right to have his child examined by any licensed physician, was agreed to. However, the act requires the physician, whoever he may be, to conform to the rules as govern the school physician, and also compels him under the same penalty to furnish the proper authorities with the same records as in the case of the regular school physician.

We realize that the bill is not just what it should be, nor what we would like to have but there are a great many things to be considered in connection with the medical inspection bill, and after considering the things which confronted us we believe the measure now before the General Assembly will come nearer meeting existing conditions in our State than any other measure we could hope to have passed at the present time.

Dr. Maddox closes.

We need better teachers in our public schools. There is not a teacher that teaches in the South Carolina public schools that could not make these tests by a little study. And, furthermore, what is going to

become of the poor, struggling doctor who is now striving to prevent pauperizing the public? You forgot the fact that that includes the children of the rich as well as the poor, and they will all demand the service for nothing—and they will get it; and the rich more quickly take advantage of those opportunities than do the poor, and I don't see what we are going to do if we do those things for nothing. A teacher will take a greater interest in her children by being forced to make these tests, and she is perfectly competent to do it. The cases that need treatment can be referred to the physician and he can charge a reasonable fee therefor.

INTERNATIONAL MEDICAL CONGRESS, LONDON—DR. JERVEY'S IMPRESSIONS.

Greenville, S. C., Sept. 23, 1913.
To the Editor, Journal of the South Carolina Medical Association,

Seneca, S. C.

Dear Doctor:

In complying with your request to write you a letter for publication in the Journal covering my attendance on the XVIIth International Congress of Medicine in London, last month, and some other account of my recent sojourn in Europe, I must remind you that my interest and attention was centered largely upon the subjects of the specialty which is my own practice, and I must ask your (and your readers') forbearance if there seems not enough of general interest herein.

Before going to the Congress I visited Edinburgh, the home of the great family of Simpsons, kinsmen of mine (I mention the fact with pride and with all humility and apologies for my own sad shortcomings), one of whom, you will remember, was the first to use chloroform for general anesthesia, applying it especially to his obstetrical practice, being at the time professor of obstetrics in the University of Edinburgh. His old home, including the family dining room, where he experimented upon his own person with the potentialities of his discovery, is occupied and largely preserved in identical form, furnishings and all, by his descendants, upon some of whom the mantle of his professional greatness has fallen in grace and modesty.

The University of Edinburgh is a magnificent institution, and the possessor of its

degree in medicine has a right to be proud of it. The Royal Infirmary, an immense hospital embracing, in large wards and clinics, all of the specialties, is one of its essential assets, of course. The eye and the throat clinics are large and well appointed, more so I think than in the numerous old London hospitals, and I was especially interested while in Dr. Logan Turner's laryngological clinic to note the popularity of the Sluder method of tonsillectomy—a strictly American invention. Personally, I do not like the method. It is quick, but I do not think it is sure in the hands of most operators. Besides I do not admire any operation that makes a shambles of the operating room, and that's what this operation does, especially when an adenoid curette ment is done in connection with it; and it usually is. As for Professor Turner himself, he is of the salt of the earth. One of the most brilliant lights of the laryngological world, his greatness is equaled only by his graciousness, his modesty, and his personal charm of manner. Would that there were more like him!

The city of Edinburgh itself is as beautiful as it is interesting, and so are its environs; and while I have no kick whatever coming in respect of their foresight and good judgment, I am bound to say the Lord only knows why any of my forbears elected to leave that lovely and cultivated clime. But they did, and that's one reason why I am relieving myself of these impressions.

A little work, a little fun,
A smile, a tear—and all is done.

Such is life! I bring it in merely as an explanation or excuse for mentioning that St. Andrew's, the shrine and mecca of all golfers, is only about seventy-five miles north of Edinburgh, and as a holder of one or two small trophies of the links, my steps naturally bent to the lodestone of the world of golf. Ah! the joy of it! The rolling green, the gorse, the heather, the sea, the old rugged gray-bearded caddies who had long ago forgotten more about the game than I ever dare hope to master. Enough! To the true golfer no more need be said; while to him who knows naught of the mysteries and fascinations of the ancient and royal game even so much is stale, flat and unprofitable—poor empty soul. "Have a care, mon,, ye're in the whins."

A week in Paris gave me the opportunity of visiting a number of the famous hospitals and clinics of that city. I have

never liked Paris, as Paris, and no more on this visit than previously, but it must be acknowledged that there are great opportunities for institutional and clinical study. I know of no finer eye hospital in the world than the Fondation Rothschild, not even in the United States where we assuredly have some wonderful caravansaries of this kind; and certainly not in London, Berlin or Vienna. The two latter cities I have not visited in five years, but that long ago, at least, I can recall nothing to compare with the Fondation in Paris. Dupuy DuTemps is the chief of the great institution, and a very affable and courteous gentleman he is, as well as a master of his profession. He is an operator of marked skill and ability, and always has plenty of material with which to exercise his talents. I was especially struck by the facility and celerity with which he removed the lacrimal sac under local anesthesia—a number of which operations, among many others, I had the pleasure of witnessing him perform. He does this extirpation of the sac in a large percentage of his cataract cases as a preliminary measure to guard against possible infection after extraction of the lens.

A very pleasant and happy little incident occurred during my stay in Paris. One morning upon entering the operating room at the Fondation, I ran upon my old friend and master, Dr. John E. Weeks, of New York. During the morning Dr. DuTemps invited him to do one of his skin-grafting plastic operations on an orbit from which the eyeball had been enucleated some time previously, and in which the entire lower eyelid had formed dense adhesions with the conjunctiva of the stump, preventing the wearing of an artificial eye. Weeks consented and performed a brilliantly successful operation. The rest of the day I spent most delightfully at that and other clinics with Dr. Weeks, together with Dr. Ellett of Memphis, and Dr. Todd of Minneapolis, old friends who are well known in the American profession.

One of the features of Paris is the maintenance of private clinics by many of the distinguished men. Landolt, for instance, has a flourishing place in the heart of the Quartier Latin, which he and the younger Landolt, his son, operate at their own expense. They have many patients there and no doubt do a vast deal of wonderful charity. They seem to be much interested in several little improvements in the adapta-

tion of mechanical principles to certain simple little eye instruments. For instance we saw there a keratome with a shank curved on the arc of a circle instead of the orthodox angle of the classical instrument.

Then Darier runs a private clinic in connection with his private office—a most unattractive and uncomfortable plan, I think. He impresses one as being more of an artist than a scientist, but one cannot doubt that he is clever.

At the Quinze-Vingt (meaning 15-20, a funny name, isn't it?) hospital, away over and around a dirty little corner from the Place de la Bastille, one of the oldest and most interesting of the hospitals of Paris, Professor Kalt is the chief of the eye department. He is the man who has given us the technique of the suturing of the wound after cataract extraction, a method which has been adopted with some little enthusiasm by some of our American ophthalmologists and he did a number of these operations while I was present. For myself, I do not use the method, since in the vast majority of cases it is certainly a superfluous procedure. Where fluid vitreous is suspected, or when much vitreous has been lost in previously operating on the fellow eye, the suture is doubtless eminentiy advisable.

Another little procedure introduced into the cataract operation by Kalt is the use of a pair of special little forceps to pinch up and remove a considerable area of the anterior capsule, instead of merely incising it with a cystotome before expressing the lens. The cystotome is not necessary, of course, if the forceps have been properly used. The plan minimizes to an extent the formation of socalled secondary cataract (which occurs in perhaps 75 per cent. of classical operations, and calls for subsequent needling or dissection) and appeals to my reason. I procured these forceps and have already used them in two cases with entire satisfaction.

Among the other places that I visited were the Laboisiere; Lermoyez's clinic at the St. Antoine; the Hotel Dieu and others, but these were not as interesting for various reasons—absence of the chief of the clinic, small clinic day, partly closed for repairs, and so on.

One thing impressed me very forcibly, and that was that the big men of the Paris profession are very approachable and appear genuinely pleased to welcome visitors

and show them all possible courtesies, in decided contrast, I grieve to say, to our British cousins, who give the impression to most people, I think, that they are in constant and dire dread of being asked to do something that will bore them. Of course when one knows them well, or there is some personal community of interest it is different. Then they thaw out, and in such cases they are as jolly fellows as anybody; but, they don't take easily to strangers, and that's a fact.

I went to London before going to Paris, but have purposely left the Congress to talk about for the last. I attended the Congress as a delegate from the American Laryngological, Rhinological and Otological Society, and have no hesitation in declaring that for scientific interest and profit it was by far the best meeting in which it has ever been my good fortune to participate. The shining lights of forty countries of the world were gathered there to talk and listen, and such an opportunity to meet and converse with the professional celebrities of the earth must be to any man an experience beyond price.

In the general sessions of the Congress in the magnificent Albert Memorial Hall, and in several of the section meetings which he attended for special discussions, our own Harvey Cushing, formerly of Johns Hopkins, now of Harvard, made a ten strike. I believe no individual member of the Congress made a better impression. He had the opportunity and did not fail to improve it to the glory of the American profession. John A. Witherspoon, of Nashville, president of the American Medical Association, and with whom I had the pleasure of crossing over, was undoubtedly one of the most popular members of the Congress. None know him but to love him. Then there were W. S. Thayer, of Hopkins, George Dock of St. Louis, Rudolph Matas and John Elliott of New Orleans, Geo. W. Crile of Cleveland, and Stuart McGuire of Richmond.

Among the ophthalmologists were Weeks, of New York and deSchweinitz of Philadelphia; Among the laryngologists and otologists, Chevalier Jackson, of Pittsburg; J. O. Roe, of Rochester and E. B. Dench, of New York; and to get near home, there was our own South Carolinian John L. Dawson of Charleston. And there were scores of others which space limitations forbid mentioning, all shedding American lustre and eloquence in the halls of the Congress. It was

impressive and a proud occasion for our country.

Perhaps the feature around which centred the greatest scientific interest was the discussion of Salvarsan and Neo-Salvarsan by Prof. Ehrlich, and his former associate Professor Hata, of Tokio. I crossed coming home on the same ship with Professor Hata and had several very interesting and enlightening conversations with him on this subject. The gist of the whole matter and the conclusions of the best observers are now well known to the whole profession through the numerous medical current periodicals, so I shall not bore you with a rehash.

An amusing incident occurred in the section on medicine. Several clinical cases with marked skin lesions were exhibited as being of obscure diagnosis. Three or four southerners from America withdrew from the room and decided in caucus that the cases were probably pellagra. They returned to the section room, but it was too late; the incident had been closed and another subject was under discussion. Curiously enough there was not a single paper or discussion on pellagra in the entire Congress, so far as I could gather from members attending various sections.

Most of my attention at the Congress was given to the section on rhinology and laryngology, though I found time to visit the ophthalmological and otological sections on several occasions. Many American faces were missing from the laryngological and otological sections that should have been there, however. Where, for instance, was Hudson Makuen of Philadelphia; and J. F. McKernon and John Richards and Wendell Phillips and Holbrook Curtis of New York; and W. L. Ballenger of Chicago; and Joe White of Richmond; and W. B. Mason, of Washington; and H. P. Mosher of Boston; and a dozen others I could mention? They were missed.

In the laryngological section an interesting incident was the opening address by the chairman, Sir St. Clair Thompson. In beautifully chosen English he bade the members and guests welcome. Then in turn he repeated his remarks in French, German and Italian, and in each tongue, as was noted by competent linguists who were present, his expressions were couched in the purest and most polished terms. He is an Englishman, who for many years lived on the continent, which in a measure explains his linguistic facility. Furthermore

he is not without humor, for during the very extensive discussion of "Indications for and Relative Values of Tonsillotomy and Tonsillectomy" he took occasion to observe that to his mind one of the principal indications for the removal of the tonsils is that "if you don't do it somebody else will." A roar of laughter greeted the sally. This subject, as always in a meeting of laryngologists, created the greatest discussion. Three years ago I read a paper before the southern section of the American L. R. and O. Society in Washington, in which I coined and emphasized the phrase, since taken up by others, "all tonsils are not bad tonsils" and went on to make the point that if we are sure any given tonsil is diseased we are justified in enucleating it; otherwise not. This was the evident sense and conclusion of the laryngological section of the Congress and so it was left after hours of conversation and sometimes more or less lively discussion.

Another very popular and interesting feature was the general discussion "On the Recent Progress of Endoscopic Methods as Applied to the Larynx, Bronchi, Oesophagus and Stomach," the leading reporters being Jackson, of Pittsburgh; and Killian, formerly of Freiburg, now of Berlin. During the discussion a somewhat cantankerous Britisher undertook to criticize Jackson in an evidently petty but rather severe spirit. At the close of the discussion, Jackson, in the best of temper, completely refuted the bally Englishman, turned the laugh on him very cleverly, and won the unstinted applause of the section.

In the section on ophthalmology the discussion of most absorbing interest was on "Glaucoma Operations with Special Reference to the Comparative Results Attained by Iridectomy and its Recent Substitutes." The leading reporters were Prof. Priestly Smith, of Birmingham, England; Professor Lagrange, of Bordeaux; and Lt. Col. R. H. Elliott, of the Indian Medical Service. Among those who spoke to the subject were Sattler, of Leipzig; Weeks, of New York; Arnold Lawson, of London; and Axenfeld, of Freiburg. There were many others besides. The general opinion seems to prevail that the trephining operation proposed and perfected by Elliott is to be accepted as theoretically and practically proper, but not necessarily to the exclusion of other well known methods of procedure. Various modifications of Elliott's method have been proposed and more or less wide-

ly adopted. I saw quite a number of the Elliott and modified Elliott operations performed while abroad, and I am impressed with its advantages. It is not a difficult procedure, and I should say it would be less dangerous than the classical iridectomy at the hands of an unskillful operator. To the experienced it is certainly easier of accomplishment than the iridectomy or the Lagrange operation, so widely heralded not very long ago.

So much for a passing view of the Congress as a scientific gathering. There remains something to be said about the general management of the affair and the social diversions that were offered. Some of the latter, including the section entertainments, given by the officers of the sections to their members, were of the utmost gentility and refinement and accordingly enjoyable. I am thinking especially in this connection of the reception at his home, given by Sir St. Clair Thompson to the members of the section on laryngology. It could not have been better done. The large crush given by Lord Strathcona, at the Royal Botanic Gardens was also a fitting and generous testimonial paid to the world of science by a great man. But as to the management of the Congress itself, which included of course the entertainments offered on the official programs, there is something yet to be added, and as I was not at any time the guest of the Congress, but a delegate and paid-up member of it, I do not feel the least delicacy in referring to these things with entire frankness.

The whole thing was a sort of go-as-you please, free-for-all, and it must be admitted, a genuinely democratic affair (with one or two conspicuous exceptions) with no especial favors or courtesies extended officially to foreign guests or representatives of component organizations—that is, so far as favors to foreigners were concerned. No, indeed! It seemed that official favors and governmental courtesies—what there were of them—were carefully reserved for British consumption only—their princes, peers, professional personages and poppycocks, with their secretaries, retainers and other free-lunch (*vin-ordinaire* included) chasers.

For days before, and all during the Congress, no one, apparently, knew where anybody could get definite information about anything connected with the business of the meeting. Several days before the opening of the sessions the general secretary pulled up his stakes from his official loca-

tion (on Hinde Street) and departed for regions unknown to those who sought him in vain, leaving behind no hint or clue as to his whereabouts, and the sad-eyed stranger-guest and delegate was—lost in Lunnon-Town!

Only two (and these incomplete) lists of attending members of the Congress were printed; one of these evidently compiled long before the opening of the meeting from the names registered by mail in advance, and not indicating the actual attendance; and the other a partial supplementary list issued four or five days after the opening session, that is near the end of the Congress.

The location of the press bureau was changed at least three times during the meeting, and it jumped so swiftly and so far that the guileless seeker for information therefrom, always found himself one lap behind in the chase to capture this elusive limb of the Congress. The Irishman's *flea* was not a patch on the agility of this subdivision of the (dis)organization.

British hospitality is not of the worrying or putting-one's-self-out variety; it is rather of the every-man-for-himself-and-the-devil-take-the-hindmost order. Listen to this: No less distinguished a physician than the president of the American Medical Association, having previously officially registered, arrived in London the morning of the opening session in the Albert Memorial Hall. He did not know or suppose that any particular formalities were imperative before he could properly enter the place of meeting. Upon approaching the door he was denied admission. He announced his identity to the door keeper, who curtly replied that it made no difference who he was he could not enter. In company with another official representative, who was also uninformed as to the peculiar requirements of the case, the president of the American Medical Association witnessed (but not for long) from the peanut gallery of the Albert Hall, in the immediate and contiguous company of a hodge-podge of odiferous foreigners—including yellow, brown, and plain nigger—a (very) abbreviated portion of the opening ceremonies of the Seventeenth International Congress of Medicine. How easy it would have been to have had some officer of authority and discretion to whom the bone-headed doorkeeper could appeal in case of such emergencies; and what a heartache, or at least the expression of one, it would have saved dear old Sir Thomas

Barlow afterwards! . And all during the ceremonies there were scores of unoccupied seats on the floor and in the stalls, and even on the stage, where delegates to the Congress and distinguished visitors should have been placed.

I don't know the precise personal attitude of the Englishman of soi-disant gentility and refinement, but when an American is advised by those supposed to be his hosts, that if he and his wife wish to go to a reception, or a luncheon, or a tea, or a garden party, he may put the names in a hat along with all the other potential and expectant guests, and that the first 100 or 200 drawn out or whatever the number may be, will be permitted to go to the party, while the disappointed majority can stay at home, thank you, or else try to ring another one of the 'five-throws-for-tuppence, sir, premiums—I say an American of reasonably good breeding and ordinary compassion will think it a shame to take the throws, and will perceive that while the method may be a cheap one for the entertainers, it must be much too much so for the entertained. Yet this was the method adopted by our British "hosts" for the advancement of the social amenities of the great occasion! Perhaps their older civilization, 'and mo-ah matu-ah, y'now,' is quite able to withstand such a shock; yet in my heart I feel for those more polished English gentlemen, many my friends, who were of course, not parties to this grand, gloomy and peculiar and altogether modern method of polite entertaining. One is induced to wonder why the Congress was invited to London anyhow!

One little social episode is too illuminating to let pass unnoticed. The medical savants, the surgical scientists of the four corners of the earth were gathered together in the capital of the British Empire. They were there to augment their knowledge by comparison and exchange and in every possible way to advance the science which year by year (even day by day), grows as the most vital element in the uplift, progress and prosperity of every civilized people. Graciously, the King of England, hampered no doubt by the rule of limited hospitality before mentioned, invited 2,000 of the members of the Congress to an afternoon garden party at the royal palace at Windsor. Parenthetically it may be said that the beautiful and spacious

garden and lawn there could hold fifty or a hundred times that many without danger of anyone being crowded off the platform, and there were about 5,000 members of the Congress, all told. However, 2,000 invitations were issued by this modern lottery method of tea-partying. When the guests arrived it was learned that the honorable George, Rex et Imperator, was off disporting himself, sailing toy boats, or watching them sail, at Cowes. Nor, in the cordiality of his hospitality to these distinguished guests, did he even leave at this function a representative of any kind, either of his royal or official family to do the honors of the occasion. Imagine, if you can, the president of the United States being guilty of such a breach of etiquette. You cannot! Nor, probably, is there another titular head of any government in the civilized world that would so deliberately slight the representatives of the greatest of the sciences. It's not the men themselves that care, mind you, but it is inevitable that there must be resentment of the fact that what they stand for in the world's enlightenment and progress was rudely snubbed by the political head of a government who either would not or could not (eheu) appreciate the great world's work that is being done.

Now for the joke of it! Of the 2,000 precious invitations duly and lotteryly issued, many remained uncalled for and many were returned, some for more and some for less obvious reasons, to the entertainment bureau. Just before the time for the great tea to be pulled off, these vagrant and henceforth vicarious invitations became the ready graft of perspicacious porters and other employees of the building, who, at a shilling a shot, would procure them for the previously uninvited and disappointed guest—one, two, four, maybe more, as many as you please, and go as far as you like! Thus, in fact, the royal garden party at Windsor became what, in effect, it already was—just a passing show, without any especial or polite significance, and leaving us quite at liberty to say whether or not it was really worth the price (one bob) or the trouble of getting there and back. Frankly, I think it was.

The German grunts profoundly; the Frenchman shrugs expressively; the American observes simply: 'We do not do it in that way.'

SOCIETY REPORTS

PICKENS.

Dr. C. N. Wyatt, president, called the meeting to order September 10, 1913. Minutes of last meeting were read and adopted. On motion of Dr. Russell the privilege of the floor was extended to Drs. LaBruce Ward and Ruth, rural sanitary directors, who were present. The president introduced Dr. Ward who entertained the Society with remarks on "Rural Sanitation." Dr. Ward was followed by Dr. Ruth. On motion the Society pledged their support for a bill before the Legislature for the medical inspection of public schools. Dr. J. L. Bolt, a member of the Legislature, spoke in favor of the bill. Dr. Tripp spoke against it.

At the regular meeting of the Pickens County Medical Society October 1. Dr. C. N. Wyatt, pres., read an interesting, as well as a very instructive, paper on "Mastoiditis." Dr. Wyatt discussed his paper from a medical as well as a surgical standpoint. Dr. Wyatt's paper was fully discussed and very much enjoyed by the Society. Dr. J. L. Bolt had present at the Society a clinic, man aged 69, diagnosis numerous fatty tumors over the body.

Dr. J. W. Jewel was unanimously elected a member of this Society.

R. J. GAILLARD, Sec.

REPORT OF PELLAGRA CONFERENCE AT SPARTANBURG.

On September 3d, under the auspices of the Spartanburg County

Medical Society, was held a Pellagra Conference. This was probably the most notable gathering of medical men ever held in this State, Dr. Louis Samson of the London School of Tropical Medicine, being the special guest of honor. Other distinguished visitors were members of the Pellagra Commission with headquarters at Spartanburg, i. e. Drs. Siler, Garrison, Miller, McNeal, Shuler and Jennings, Drs. Lavinder and Grimm of U. S. P. H. S. and many other prominent physicians from the Carolinas and Georgia. Over two hundred physicians were in attendance.

Dr. Babcock, to whom Dr. Samson gave credit for having first brought attention to the existence of Pellagra in America, and for his making possible the investigations made in Italy and other European countries, presided over the meeting.

Dr. Samson told in a conversational manner the history of pellagra and the investigations made by himself and others and also stated his conclusions.

Dr. Ward McNeal of New York Post Graduate Hospital read the report and conclusions of the Pellagra Commission showing the immense amount of thorough work done by the Commission. Dr. McNeal is the pathologist of the Commission.

The meeting was thrown open for general discussion, among those who took part in this were Drs. Roberts, Mizell and Niles of Atlanta, Wood, Bronson, Bell, Leinbach, Kirk and Hiott of North Carolina; Whaley, Robert Wilson, Pressley and Hayne

of South Carolina, and Lavinder and Grim of P. H. S.

After dinner the visitors were taken in automobiles to the pellagra hospital and offices of the Commission.

At 8 o'clock the guests were entertained at a smoker at the country club where papers were read and talks made by several physicians. A number of prominent business men of the city were present and assisted the Society in entertaining its guests.

L. ROSA H. GANTT, Sec.

SPARTANBURG.

The Spartanburg County Medical Society held its regular monthly meeting on September 26. Dr. Tate exhibited a patient with sores on the flexor tendons on the hand, these sores followed swelling without trauma and without any other symptoms. No specific history could be obtained but it was generally believed by those present that the patient should be put on specific treatment and Wasserman test made.

Dr. Kaupp, Health Commissioner of Spartanburg, asked that in reporting contagious diseases such as diphtheria and typhoid the physicians report also the milk and water supply. He advised placarding for whooping cough, measles and mumps and making microscopic examination of throats before patients with diphtheria are released from quarantine.

It was suggested that the city should own a sterilizing plant for sterilizing bedding, etc.

A committee was appointed for the purpose of arranging for the maintenance of the Pellagra Hospital during the winter months.

Dr. W. B. Lyles was appointed es-

sayist at the District meeting to be held in Anderson in November.

L. ROSA H. GANTT, Sec.

THIRD DISTRICT MEDICAL ASSOCIATION.

ABBEVILLE.

The semi-annual meeting of the Doctors of the Third District of South Carolina, comprising the counties of Abbeville, Greenwood, Laurens, and Newberry, was held at the Eureka Hotel in this City Thursday night. In the absence of the president, Dr. T. L. W. Bailey, of Clinton, the meeting was presided over by Dr. R. B. Epting, of Greenwood, vice-president. The attendance was unusually large and the meeting was pronounced the best in the history of the organization.

A committee of local physicians, with Dr. G. A. Neuffer at the head, had made full arrangements for the entertainment of the visiting gentlemen. An elegant four-course dinner was served early in the evening. One long table and several smaller ones accommodated the visiting and local guests. At one end of the long table sat the presiding officer, Doctor Epting, on his left and right, respectively, being seated the Rev. Louis Bristol, the orator of the occasion, and Dr. O. B. Mayer, of Newberry, nestsor of the Society. At the other end sat the Rev. G. C. Leonard, who invoked the Divine Blessing upon the proceedings.

At the conclusion of the dinner, an address on behalf of the city, welcoming the doctors was made by Mayor C. C. Gambrell. Then followed an address of welcome from Dr. J. R. Power, president of the Abbeville Medical Society, who introduced Mr.

Bristow, the evening's speaker. Mr. Bristow spoke on M. D.'s and other D's" his address being replete with wit, humor and sound counsel to the physicians.

The several papers which were read provoked a general discussion, and brought out valuable information gathered from the personal experiences of the doctors present. The following was the program:

"Malaria," by J. E. Pressley, M. D., Abbeville.

"The Need of Full Time County Health Officers," by G. F. Klugh, M. D., Cross Hill.

"Bugs," by G. A. Neuffer, M. D., Abbeville.

"Salversan," by John Lyon, M. D., Greenwood.

"The Rights of the Child," by Jas. A. Hayne, M. D., Secretary State Board of Health, Columbia, S. C.

"Blood Pressure as it Concerns the General Practitioner," by Louis G. Beall, Greensboro, N. C.

"Does Autotoxemia Cause Goitre or Goitre Cause Autotoxemia?" by Isadore Schayer, M. D., Laurens.

The following officers were elected for the ensuing year: President, Dr. T. L. W. Bailey of Clinton; vice-president, Dr. R. B. Epting of Greenwood; secretary and treasurer, Dr. J. E. Pressley of Abbeville. The time for the next meeting was fixed for late September, 1914, and place of meeting was left to the officers of the society.

G. A. NEUFFER, M. D.

BOOK REVIEW

SURGICAL CLINICS of John B. Murphy, M. D., at Mercy Hospital, Chicago. August, 1913. Published Bi-Monthly by W. B. Saunders Company, Philadelphia and London.

A few of the twenty subjects treated are as follows: Some Observations on Vaccine and Serum Therapy from Dr. Murphy's Clinics; The Blood Supply in and Around the Joints; Cylindric-Cell Carcinoma of the Breast; Laminectomy for Myeloma of Cord; Appendicitis.

This is one of the most important of the whole series thus far issued. The subject of Vaccines in Surgery has been carefully described, and we have not seen such a practical resume of the subject anywhere. There is a note of hopefulness based on good results from the use of Vaccines at the Mercy Hospital well worth considering by every practitioner. In addition to this special feature there are quite a number of superb X-ray pictures showing the blood supply of the joints and which forms the basis of Dr. Murphy's teaching and operative work on the joints.

Dr. Murphy gives a clear history of his

first operation for appendicitis March 2, 1889, and goes over the whole subject in an interesting way.

THE PRACTICAL MEDICINE SERIES, Comprising Ten Volumes on the Year's Progress in Medicine and Surgery Under the General Editorial Charge of Charles L. Mix, A. M., M. D., Professor of Physical Diagnosis in the Northwestern University Medical School, Volume 5.

PEDIATRICS, Edited by Isaac A. Abt, M. D. Professor of Pediatrics, Northwestern University Medical School, Attending Physician Michael Reese Hospital.

ORTHOPEDIC SURGERY, Edited by John Ridlon, A. M., M. D., Professor of Orthopedic Surgery, Rush Medical College, with the Collaboration of Chas. A. Parker, M. D., Series 1913, Chicago, The Year Book Publishers, 327 S. La Salle st., Price \$1.35.

This volume like its predecesors is an exceedingly practical book. The very latest literature on each subject has been

culled and presented. We were especially interested in the studies on Whooping cough, Infantile paralysis, and Antityphoid Vaccination in Childhood.

Orthopedic Surgery has been cleverly written up and the most important advances in our knowledge presented.

MALARIA, ETIOLOGY, PATHOLOGY

Diagnosis, Prophylaxis and treatment, by G. E. Henson, M. D., member American Medical Asso., Florida Medical Association, Southern Medical Association, American Society of Tropical Medicine, Medical Reserve Corps, United States Army (Non-active List.) with an introduction by Charles C. Bass, M. D., Professor of Experimental Medicine, Medicinal Department Tulane University, New Orleans. Twenty-seven Illustrations, St. Louis, C. V. Mosby Company, 1913, Price \$2.50.

There appears to be renewed activity in regard to the whole subject of malaria.

This awakening appears to us to be fully justified. To the South, almost every section of it, the question of Malaria is a most vital one. If we are to conquer this enemy to human progress we cannot know too much about it.

The book under review is well written and covers the subject in a very attractive manner.

Dr. C. C. Bass of New Orleans writes the introduction. It will be remembered, Dr. Bass received the gold medal at the hands of the American Medical Association at Minneapolis last June in recognition of his original work on Malaria. A similar honor was conferred by the Southern Medical Association recently.

MARRIAGE AND GENETICS, Laws of Human Breeding and Applied Eugenics, by Charles A. L. Reed, M. D., F. C. S., Fellow of the College of Surgeons of America; Member and former president of the American Medical Association; Professor in the University of Cincinnati; sold only by subscription, The Galton Press, publishers, Cincinnati, Ohio.

This certainly is an up-to-date book as it was issued September 10, 1913. The subject is an up-to-date one of vast importance. Like the whole subject of preventive medicine, to become really operative and effec-

tive every body who can possibly help should take a hand.

Dr. Reed has had a vantage ground accorded to few. He has had an enormous experience as a surgeon and a remarkably comprehensive knowledge of legislative matters. We believe every doctor should interest himself in Eugenics and no part of this great country needs this study more than the South.

It is not necessary to present an extensive review, only to give the name of the author and the subjects treated as follows: Life, Continuity of Human Life, Sexual Efficiency, Character Units, Inheritance, Heredity, The Human Norm, Growth and Reproduction, Food and Fecundity, Natural Selection, The Social Diseases, The Eugenic Medical Examination, Genetic Factors.

PREVENTIVE MEDICINE AND HYGIENE

By Milton J. Rosenau, Professor of Preventive Medicine and Hygiene, Harvard; Director of the Hygiene Laboratory, U. S. Public Health Service with Chapters upon Sewerage and Garbage, by Geo. C. Whipple, Professor of Sanitary Engineering, Harvard; Vital Statistics, by Cressey L. Wilbur, Chief Statistician Bureau of Census, Department of Commerce and Labor. The Prevention of Mental Diseases, by Thomas W. Salmon, Director of Special Studies, National Committee for Mental Hygiene, etc. New York and London: D. Appleton & Company. 1913.

Few will deny that this is a timely book. Is there a more burning question today than the problems of preventive medicine? Much is being written that is not authoritative and thus may be misleading. There is great need therefore for just such a clear cut, forceful presentation in a single volume of the gist of our knowledge of this subject. Dr. Rosemau has supplied the book.

The subject matter, broadly speaking, has been treated under the heads of Personal Hygiene and Sanitation. Such a work should be in the hands of every physician as well as the health officers' library.

In the daily rounds of the general practitioner questions of prophylaxis are paramount. A working knowledge of the means at our disposal for the prevention of disease has been here given the profession.

Current Literature.

NUMBER OF MEDICAL STUDENTS IN 1913.

The number of medical students in the United States for the year ending June 30, 1913, was 17,015, a decrease of 2,771 below 1911, a decrease of 4,511 below 1910 and a decrease of 11,127 below 1904, when the highest number of students were enrolled. In fact, it is the lowest number since 1900. Of the total number of students, 15,909 were in attendance at the so-called regular colleges, 850 at

the homeopathic, and 256 at the eclectic colleges. The attendance at the regular colleges shows a decrease of 1,368 below that of last year and 2,505 below 1911. In the homeopathic colleges there was an increase of twenty-three above the attendance of 1912, but a decrease of forty below the total for 1911. The eclectic colleges show a decrease of fifty-two below 1912 and a decrease of 177 below 1911. These figures are taken from the annual educational number of *The Journal of the American Medical Association*.

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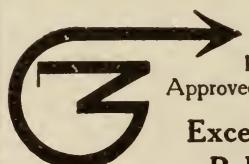
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EDGAR A. HINES, M. D., Editor, Seneca, S. C.

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EDITORIAL

PITUITRIN IN OBSTETRICS.

THE discovery of pituitrin was indeed most fortunate for the general practitioner who keeps clearly in mind the indications for its use. We name the general practitioner because it is he who attends the vast majority of obstetric cases and often under very adverse circumstances. Again, any simpler method of procedure which will obviate the use of the forceps should frequently prove a boon to the average physician. Some practitioners never acquire great skill in the application of the forceps and therefore may do harm as a result. Those who have had occasion to resort to forceps when all other means have failed and

often with no trained assistance whatever, are perhaps quite ready to welcome some effective substitute.

Evidence is accumulating all over the world confirming the early reports of the great value of pituitrin. We believe it is the duty therefore of the obstetrician to study clearly the indications for its use, put the drug in his satchel and administer it promptly when the proper case presents itself. We say this because thereby the patient may be saved from useless suffering and the physician thus fulfill his true mission.

Here are some of the men who have given careful thought to the subject and advise its use when indicated: De Lee, Edgar, Fischer, Hengge, Humpstone, Grunbaum, Fries,

Jaschke, also the Freiburg Klinik and the Vienna University.

Some of the indications follow as given in the Chicago Year Book just off the press:

1. The woman must not be too anemic.
2. Longitudinal position of the fetus in utero.
3. There must be no mechanical disproportion present.
4. The cervix must be dilated sufficiently to permit of a wide rupture of the membranes.

The drug is contra-indicated in the following conditions:

1. With regard to the mother when there is arterial hypertension, for it is known that piturit in increases the blood pressure. If the tension is increased to a certain degree, eclampsia, or at least convulsions may occur.

2. With regard to the fetal presentation, the drug is not called for when there is a certainty that the labor cannot be accomplished with the force of the uterine contractions alone. In a transverse presentation it would be a serious mistake to use it without a previous podalic version, but there is no danger after the version is accomplished if one wished to avoid a too serious traction. If the pelvis is disproportionate to a greater degree it is better to perform Cesarean section or pubiotomy. If the child is dead, craniotomy is called for.

3. So far as the age of pregnancy is concerned the action of pituitrin is doubtful early in gestation.

Otherwise, pituitrin is superior to the methods hitherto employed to induce or accelerate labor, whether mechanical or medical—lactose, quinine, or ergot.

Pituitrin is certainly one of the most interesting drugs from the

standpoint of practical utility which has been placed in the hands of the practitioner in a long while. For instance, while it is often invaluable as an oxytocic it will not produce abortion. After abortion becomes inevitable its use has been found often indicated and satisfactory. It has been found of value by some operators in Cesarian section. In post partum hemorrhage pituitrin promises much as an aid.

It is highly important that only the very best preparation is used, otherwise failure is sure to follow and hence discouragement and skepticism of the truthfulness of the many statements as to the real value of the drug.

REPAIR THE LACERATED PERINEUM

ONE of the procedures which has stood the test of time is the immediate repair of the lacerated perineum. There would appear to be few exceptions to this rule and few obstetricians whose practise is not in line with this idea. The operation should be performed with great care and regard for the ultimate results.

Just as post partum hemorrhage will be reduced to a minimum by greater skill in the management of the third stage of labor so infection will be less likely to occur if the lacerations following labor are treated properly and at once.

THIRD STAGE OF LABOR.

PERHAPS the conservatism now advocated by many competent observers in the management of the third stage of labor will result in the saving of more lives than almost any dictum of recent years in Obstetrics.

Williams of Johns Hopkins was one of the first in this country to advise great caution in the matter of

haste in delivering the placenta. The Crede method of 1861 found ready acceptance for obvious reasons, not the least of which was the time saved for the busy doctor. Ahlfeld urges the expectant plan of treating the entire third stage of labor coupled with accurate watchfulness. It is possible that, as is often the case, a course midway between these extremes will in time generally prevail. It is certain that the third stage of labor deserves more than ordinary consideration in the light of our advancing knowledge.

DR. JOHN B. BRITT.

Special to The State.

McCormick, Oct. 20.—Dr. John B. Britt was buried today with Masonic honors at old Buffalo Baptist church, the home of his ancestors. Dr. Britt was graduated from the Jefferson Medical College of Philadelphia in the early '90s, practiced medicine at his old home and at Verdery, but for the last four years at Princeton.

The death of Dr. Britt is peculiarly sad, because he was a young man, only 47, of lovable spirit and great usefulness, a broad-minded, high-toned, Christian physician, honored and loved by all who knew him. He leaves a widow, four girls and one boy, mother, brother and sisters to mourn his loss. He died at the home of his twin sister, Mrs. B. A. Mattison. His funeral was conducted by the Rev. Mr. Lee of Greenville, a former pastor.

Dr. C. S. BRITTON DEAD.

Bishopville, Oct. 10.—Dr. C. S. Britton, a popular physician of the Spring Hill section of this county, died at his home this morning, after an illness of several months.

Dr. Britton was 70 years old. He leaves a wife and a large family of sons and daughters. The remains will be buried at St. John's Methodist church to-morrow morning. *News and Courier.*

ORIGINAL ARTICLES

THE TREATMENT OF MALARIA.

*By J. E. Pressley, M. D., Abbeville, S. C.

The title of my paper does not need any introductory remarks. I am satisfied in my own mind, and no doubt you will be before I have finished, that this society was sadly in need of papers when they asked for one from me. As you will see before I have finished, the thoughts I have to present

are not original, and I hope you will pardon the crude way I have in presenting them.

Most doctors labor under the idea that this is a simple and easy disease to diagnose and treat. Often when a doctor is asked about a patient and the seriousness of a disease, he replies that it is nothing but a case of malaria. Right then and there he may be right, or like the negro said he may have skunt his ignorance.

We all agree as to the etiology of the disease for as far back as 1880, a Frenchman discovered the para-

*Read before the Third District Medical Association, Abbeville, S. C., September, 1913.

site and it stands today as it did then a hard one to deal with when it comes to treating it successfully. Your diagnosis is made. You have but to treat it, and you will get results. Now what do you mean by treating it? This is where I wish to lay a special stress. You may read volumes on the subject, and all you get out of it is to give quinine. How much? Twenty to twenty-five grains in acute stage, iron and arsenic during convalescence. True you must give quinine, but twenty grains is not enough to give results. The average dose of quinine given in this part of the country is twenty grains, and it should not be less than thirty-five—five grains given every two hours. You do not have to wait until your fever goes down to give it. Why not give your acetanilide or phenacetine along with it for the first four doses? Your antipyretic acting in a double capacity, lowering the temperature, easing the headache, backache, pains in the leg, usually accompanying the fever? Another idea prevalent in this section is that quinine should not be given until you have had free purgation. Give your dose of calomel, castor oil, or citrate of magnesia, wait an hour, start your quinine.

Where you have excessive vomiting, an over sensitive stomach that will not tolerate quinine, or one of those patients who cannot take capsules, then give him quinine by injection. For this purpose the quinine and ureahydrochlorate is the one to use, for reasons not known to me it gives better results than the other form of quinine, and we have fewer abscesses resulting. Here again give your quinine for results, and not because the book says so. Ten grains t. i. d. or where you cannot see your patient

but twice a day fifteen grains in the morning, repeating the dose in the evening, giving your antipyretics every two or three hours while the fever lasts. Sometimes doctors have to be reminded that while the age of one person governs one as to the size of a dose, one must take into consideration the physical development of the patient and give the quinine accordingly. For instance, I gave a suspected case of malaria thirty-five grains of quinine, not knowing until the day afterwards that the patient was only eleven years old. There were no bad results from it. To those who have an idiosyncrasy for quinine sodium bromide may be given. It prevents the rash and allays the nervous system. The doses mentioned above are to be used as the initial treatment, and if you must, repeat it in ten to twelve hours. The former doses not having caused or been any discomfort, I do not hesitate to increase the dose five to ten grains. My contention has been, and will be, that we do not give enough of quinine to get quick results. True if you just keep on repeating your small doses, you will ultimately get your fever stopped. Not to repeat too much, but to make it clear as to what I mean by giving quinine for results, I will say that I have given quinine in five grain doses to a child eighteen months old injecting it into the deep muscles of the thigh, this being repeated in twenty-four hours, cold water being used to control the fever. I have seen ten grains given to a child two years old, the dose being repeated twice in twenty-four hours, making in all thirty grains in twenty-four hours. I have seen an adult get thirty grains by injection twice in twenty-four hours, in a case of pernicious fever,

and I have yet to see any bad results from giving quinine.

The administration of ten grains of quinine, ten hours before the chill is expected, to be repeated in ten hours, is said by Mexican physicians to abort the chill. I have tried this, and it seems to give results. Ten grains of quinine every other night for six doses is also advised as an after treatment. For the after treatment, we have not found anything that will take the place of Blaud's mass pills, and Fowler's solution, or the Elixir of 10 and S with Fowler's solution.

For the enlarged board like spleen which we so seldom see in this country, Fowler's solution has to be pushed to tolerance.

I have tried to be brief in the best way possible, have given you my ideas for the treatment of malaria. These facts, for they are facts, I have learned from actual experience, and in conclusion will say if there is a moral in the treatment of malaria it is give quinine in large enough doses to get results.

BONE GRAFTING IN UNUNITED FRACTURES.

*S. C. Baker, M. D., Sumter, S. C.

In the great majority of instances where a bone has been fractured there is a satisfactory union or knitting of the fragments after a reasonable time, provided they have been placed and maintained in suitable apposition by the time-honored means of extension, counter-extension, manipulation and fixation by splints. In quite a number of instances, however, even when proper

contact has been maintained, no satisfactory union results and the surgeon is forced to adopt more radical measures.

The reason for non-union is not always easy to find. In many instances the ends of the bone are held apart by an intervening strip of fascia or muscle, and in the case of compound fractures infection always plays an important part. But these causes being excluded, it can be said in a general way that non-union is liable to occur in the undernourished or in cases of multiple fracture, especially if accompanied by considerable mangling of the parts and shock to the individual, as tending to bring the system below par or exert an unusual demand upon it.

In many of these cases of non-union rubbing of the ends of the bone together, thereby freshening up the contacting parts, coupled with a generous diet and the administration of preparations containing lime salts will bring about the desired result. In other cases the fixation of the fragments by means of such appliances as Lanes' plates or the simple wiring of the bones together has proved satisfactory. But all of these methods occasionally fail, largely, it would seem because there must be left in the wound an essentially foreign substance, which, while acting beneficially as a means of coaptation and fixation, is nevertheless an irritant and has no ability to help the osteogenetic elements of the bone to bridge the gap between the fragments.

Physiologists have taught us that bone is nourished, generated and repaired almost solely by means of its periosteum and this is undoubtedly largely true, but apparently not altogether so. According to Dr. John B. Murphy the medullary aspect of

*Read before the South Carolina Medical Association, Rock Hill, S. C., April 17 1913.

the shaft of the long bones is even more richly supplied with osteogenetic cells than the periosteal aspect, and he maintains that the best results in nonunion can be obtained by using a *bone graft* that is inserted into the medullary cavity of the upper and lower fragments. His method of procedure in brief is this. The site of non-union is exposed and the ends of the bone freed of all undue callus and intervening connective tissue and the medullary cavity of both upper and lower fragments reamed out for a depth of one or two inches for the reception of the graft. An incision is then made over the crest of the tibia, the periosteum split and turned back and a sliver of bone from $\frac{5}{8}$ to $\frac{3}{8}$ inches in thickness and sufficiently long to fit into the bone fragments and bridge the gap between is chiseled out. In doing this the utmost asepsis must be observed. The hands are not allowed to touch the bone or graft but it is lifted out of its bed with forceps and wrapped in sterile gauze until ready for use. The tibial wound is then closed and the graft having been first shaped to fit its new location is shoved or driven into the reamed-out cavities in the fragments. The tissues are closed over the bone, a collodion dressing applied and a plaster bandage put on. In due course of time firm union occurs provided proper contact and due asepsis have been obtained while serving as an element in fixation. The chief role which the transplant plays is that of a scaffold. The Haversian canals in the transplanted bone act as tubes into which the Haversian vessels from the living bone above and below pass. These Haversian vessels carry with them on their walls osteoblasts and osteoclasts. The osteoclasts dissolve the bone that was

transplanted and the osteoblasts make new bone, so that one brick is taken out and another brick put in and this continues till all the old bone is removed. New lamellae are produced around it and it all becomes new bone of exactly the same size and shape as the implant, then the new bone increases in size and strength as much as is necessary or demanded of it by the limb.

If Dr. Murphy's theory be correct and his results seem to justify its acceptance, then the use of absorbable bone grafts would seem to be more rational, as well as more satisfactory than the employment of non-absorbable metal plates or ivory pins. The criticism that the method requires two wounds instead of one is hardly worth considering since the opening over the tibia is very superficial and easily and quickly made, and is followed by no bad results in the hands of a man capable of carrying out asepsis.

The history of the following case in which I employed the methods above described will illustrate I think the advantages of the bone graft.

April 25, 1912—*Murray B.*—Colored, age 25, a laborer at a saw mill, while at work near a revolving shaft, had his coat caught by a projecting set screw, was jerked from his feet and rapidly whirled around the shaft so that his right leg and both arms struck against a cross bar of wood as he revolved, and were fractured in numerous places, and his back, chest and abdomen were severely bruised.

The left forearm was badly mangled below the elbow and both bones were broken in several places. The wounds were cleansed with creolin water, torn skin sewed together and the limb enveloped in sterile gauze,

was extended and placed in wire splint with wet carbolic dressing.

Right humerus sustained a simple fracture near its middle. Right radius and ulna were fractured near the middle of the forearm and the ends protruded through the skin. One of the extensor group of muscles was torn loose from its origin near the elbow and hung out of the wound as a thin ribbon of flesh. The ends of the protruding bone were cleansed as thoroughly as possible with creolin solution and brush and retracted into place. A buttonhole slit was made through the skin over the common origin of the extensors, a hemostat inserted and the nose passed down to the rent in the skin at the site of fracture, the extremity of the pendant muscle was caught and pulled back into place and its origin stitched there with catgut. Buttonhole closed and also the rent, all was covered with wet carbolic gauze pads and wire splint applied from shoulder to finger tips. Both bones of right leg were broken about two and a half inches above the ankle and soft parts considerably lacerated, fragments lapped nearly two inches. Lower end of tibia protruded through skin. Parts cleansed bones reduced and limb enclosed in moist dressing and weight and pulley applied.

May 4th, nine days after accident; infection had developed in left arm which was much mangled at time of injury, patient profoundly septic, no hope of saving limb, so arm amputated above elbow through sound tissue. Flesh wounds of right arm and leg have healed by primary union.

June 15th—amputation wound of left arm entirely well, fracture of right arm apparently united, but fracture of right forearm and ankle

not united. Patient put upon tonic medication and generous diet.

August 2nd—Fractures of forearm and ankle still ununited, patient fat and hearty. Incision made over fracture in radius and ulna, and fragments wired together with phospho-bronze wire, wounds closed and splint applied; fragments of tibia and fibula still overlapping were rubbed together vigorously, extended as much as contracted muscles would permit, weight and pulley again applied, and limb supported by sand bags.

September 13th—Soft parts of forearm healed by primary union after the wiring on August 2d, but no bony union either in forearm or ankle, resort was then had to the Murphy method of bone implantation, with the following slight modification: The implants were not taken from the crest of the tibia. The upper and lower fragments of the fractured bones had again overlapped each other nearly two inches, and were held there so strongly by the contraction of the powerful calf muscles that it was impossible to get re-extension to the normal length by about one and one-third inches; consequently the ends of the bones were turned out through an incision and the overlapping portions of the upper fragments were sawn off so as to allow the fragments to come into apposition. The excised piece of tibia was then split with a chisel into a number of splinters, one and 1-3 inches long, and from one-fourth to one-half inch in diameter, the medullary cavity of both bones was reamed out for a depth of one inch and the stoutest splinter inserted and driven tight into the two fragments of the tibia, thus serving as a bony dowel pin. The ends of the fibula were treated likewise with a smaller splinter, the wound was then closed

with silk worm gut sutures and enveloped in wet carbolic gauze and encased in a wire splint. The remaining bone splinters were wrapped in sterile gauze, while the fractured ends of the radius and ulna were being exposed. The useless wire loops were snipped away, the ends of the fragments everted and reamed out, and a bone splinter placed in each. Wounds closed and dressed as in case of tibia. It is remarkable that in all this time (twenty and one-half weeks since the initial injury) not a particle of callus had been thrown out by the radius, ulna, or tibia. Wounds healed by primary union, and on October 27th (six weeks after bone transplantation) patient was able to go home, bony union having taken place at all points. The right leg was of course one and one-third inches shorter than the corresponding member.

Dr. Murphy in his reported work has obtained some very remarkable results (in numerous instances being able to bridge-in spaces of several inches—in one instance as much as eight inches between fragments of bone). The case that I have reported is the first in which I have employed the method, but it had practically run the gamut of all the methods in vogue without result to finally respond to bone graft at the first application.

Dr. Albee is doing a kindred and most rational line of bone grafting in the treatment of Potts' disease. It is to be remembered here, that there is an absorption of the bodies of the vertebrae in front, and the chief support of the trunk is thrown upon the articular processes with a tendency of the spinous processes to

tilt apart behind, and of the bodies, to crowd together in front. The rationale of his treatment is to rigidly fix the spinous processes behind with a bony splint so that they cannot separate themselves, and to thus prevent crushing action upon the softened bodies in front. The patient is placed on the table face downward and an incision made in the mid line of the back, down upon the tips of the spinous processes of the diseased vertebrae and one vertebrae beyond at either end. The supra-spinous ligament is split with the knife and a chisel is then applied and each spinous process also split to a depth of about one-half inch. This dorsal wound is then protected with salt sponges, and a cut of similar length is made over the crest of the tibia of one leg, and a sliver of bone about one-fourth inch in thickness and as long as the spinal incision is removed with its overlying periosteum intact. This sliver is laid lengthwise up and down the spine in the trench ready prepared in the split processes of the vertebrae and is shoved home into the split, the periosteal side upwards where it soon becomes an integral part of the spine, gives most valuable support and entirely does away with the necessity of the annoying plaster jacket that is so commonly used.

I do not mean to say that these methods will be proper or necessary in all instances. Lane's plates are probably more satisfactory for early use, but they have brought most gratifying results in a trying class of cases and will in many instances, with proper care, prove a great boon to both the surgeon and the patient.

MORPHINISM.

*By W. C. Ashworth, M. D., Greensboro,
N. C.

When we approach the realm in which the drug habitue lives, moves and has his being, it is well to remember that practically all the theoretical knowledge we may have gathered in regard to the nature of drug addictions must now be laid aside, for the subject under consideration is presented to us, not as a theory, but as an existing condition of lamentable reality. He who would successfully cope with this monster must be thoroughly equipped for that which will at times develop into a terrific combat, and he will need the helmet of tactful strategy, the breast-plate of confident, inspiring determination and the whole armor of the alert skilful physician and competent psychotherapist.

The use of drugs is universal. In all countries in every climate, among all tribes and races, man has learned the action of certain vegetable and mineral substances, and classified them according to his experience with them. The poison, that which carries with it the possible sting of death, has ever attracted the human race. Man has ever flirted with temptation, but regretted her embrace.

Drugs possessing habit-forming properties have a peculiar seductiveness that but few persons can withstand after having become acquainted with their action. In small doses the thought centres and faculties of ideation seem to be increased; fancy, for the time being set free, contributes a joyousness and careless free-

dom which the wearing cares of the daily struggle for existence cannot hamper nor suppress. In the larger dosage which inevitably follows, the narcotic influence becomes more marked; co-ordination is impaired and relationship with the world at large is disturbed to such an extent that the victim exists in a dreamy, selfcentered-world state, the return from which is disturbing and irritating. After a period of indulgence the unfortunate finds himself in the embrace of the enslaving drug, and because of the accompanying impairment of volition soon admits, to himself at least, that he has become hopelessly ensnared in the meshes of habit, and that assistance will be needed in order to enable him to secure freedom.

Notwithstanding the oft-repeated assertion made even by such as claim to have had opportunity for systematic observation, that the extent of drug addiction is constantly being overestimated, and that the danger to be feared from an increase of the same is more imaginary than real, the fact remains that drug addiction, especially that of opium or its alkaloids, and cocaine, is today a cruel, merciless monster whose almost relentless grasp holds in a thraldom infinitely worse than slavery its legions of victims in all parts of the world.

The far-reaching effect of drug addiction cannot be imagined, much less accurately determined, and only such as have had the opportunity of observing a bright, intellectual, and promising young man or woman gradually lose their ambition, their character, their manhood, their all, and sink into an oblivion worse than death, can understand the full import of the assertion that drug addiction constitutes a most effective

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barrier to the elevation of some of our brightest minds, and too frequently clouds the most brilliant intellects."

The etiology of morphinism dates back almost from time immemorial. The human family seems, from the most remote antiquity, to have felt the need of artificial stimulation and something to blunt the sensibilities in the presence of unusual troubles or mishaps of any kind.

It is very true that the lulling influence of the juice of the poppy has played a very important role in the history of mankind. The Chinese were the first to cultivate and imbibe the seductive and subtle benefits of the poppy. A feeling of insufficiency and the universal dread of suffering are responsible to a large degree, for the extension of the opium traffic and its use in the United States. The exigencies of life and the latter day high cost of living have contributed their full quota to this large and increasing class of unfortunates.

The enslaving properties of the drug plus its devastating effects on both the mind and body easily make it the greatest menace to civilization of the present day.

It is estimated that only about ten percent. of opium and its alkaloids-morphine, etc., imported to this country, is used for medicinal purposes. It is therefore true that the large excess, beyond what is consumed legitimately, is consumed by the regular habitues of the drug.

The common belief, among the laity especially, that the opium and its derivatives are comparatively innocuous and can be used indefinitely with impunity is responsible, in a large degree, for the lamentable spread of the habit. It is a fact, however, that the habitual use of morphine is not only a constant menace to the health

of the user, but life itself is often endangered and a serious train of disastrous results rapidly follow in the wake of its use.

The average morphine user is a parasite on the community; being unproductive and content, in most instances, to while away his time under the seductive influence of the drug. The exhilaration or euphoria incident to the use of the drug is a temptation for its continuance that very few can withstand after having once experienced it.

EFFECTS OF MORPHINE.

It is a fortunate thing for some people that the use of morphine or any opium is followed in a few hours by the most dreadful depression and nausea. There are a large number of people who suffer in this way and as a consequence there is little danger to them of contracting the morphine habit. They could only do so by suffering from so severe a chronic pain that they are willing to endure the after effects so as to get the relief the morphine gives. After a few doses or more, however, it loses the bad after effects.

There are others—and I believe they are in the majority—who never suffer this depression and nausea even with the first dose of the opium. Let us imagine one of these last suffering some excruciating pain—toothache, earache, or colic—to whom a dose of morphine (hereafter, I shall use the word "morphine" intending to include therein all the other opiates) is given. In less than an hour he has absolute relief from all pain, not only from all physical pain, but relief from all mental worries and troubles. His mind works with renewed power and he has a self-confidence never felt before. His thoughts flow freely; his judgment is certain and absolute. He is full

of a mental energy never felt before and through and over it all there is a solemn sense of happiness and content with self and surroundings.

The judge who has doubted his proper decision before has all doubt removed. His mind is as clear as a bell and he *knows* what is justice and right. The Doctor, worn out and exhausted from over work, with mind only half acting, in a short time becomes strong with mental machinery in perfect trim. Then he becomes acquainted with morphine for the first time. He may go months before he thinks of it again when the same tired feeling makes him use it again without any thought of danger. Again he gets the rapid relief, again he experiences the wonderful euphoria that morphine brings. Thus he dallies with the drug for a year or more. At the end of this time he still has no thought of danger. He is taking it very much oftener than he did at first but he has a good excuse each time. He is still leaving it off for days without any suffering. What danger can there be for him? Each dose still brings a wonderful energy, wonderful mental action and that marvelous feeling of wellbeing.

Another year and we find him taking morphine every day. This is another story—he has become a morphinist. And yet if he is moderate in its use he may have four or five years before he begins to pay the penalty. His best friends, even his wife during this stage, may not know of his habit. But there comes a time when he begins to show all the symptoms belonging to a morphinist. This time comes much sooner to those who use the needle than those who use it by mouth and there are certain neurotic or neurasthenic natures that run a very rapid course in becoming a morphinist. Some in six months

time can bring on all the most pronounced symptoms.

Let us consider the symptoms of the confirmed morphine user. The morphine must be taken every day, almost at the hour called for; there is no feeling of wellbeing or euphoria now. The dose is taken just to maintain a physical and mental equilibrium because any attempt to stop brings on the most horrible suffering. In the early morning we find him shaking and trembling until he gets his first dose. It is impossible for him to do anything until he gets this. As the day advances and he gets dose after dose, he becomes nearer a normal man, so that by afternoon and night he is more capable of doing his work.

The physical change brought about may not be so great. I do not think there are any permanent changes in the organs of the body and the morphinist seems to have a special protection from almost all diseases. In the majority of cases, the morphinist is thin; his skin is pasty white color, the eyes are dull, the pupils contracted and the whites a muddy blue. The total effect is that of one not entirely awake. These changes are brought about by the morphine-toxemia and this is produced by its effects on the secretions and excretions of the body.

With the exception of the perspiration, there is not a single one of these that morphine does not check and it is the toxemia produced by this that is the cause of all the changes that have been brought about by the drug.

The moral and mental changes that are brought about in the morphinist are probably greater than the physical ones. Procrastination now is the key note of his character. "He will not do today what he can put

off until tomorrow," so we find him neglecting duties. He is slow and careless about answering letters. He is not as careful as he formerly was about meeting his obligations. He is careless about his dress and apt to neglect his social duties along with the others.

Yet I would not maintain, as some writers do, that the morphinist is necessarily immoral (utterly lost to moral ideas.) There are a few who are, but I have known others who were as high-toned as any people I ever knew. Probably all morphinists will lie about their habits, and this is probably caused by the ease with which the habit is hidden at the beginning.

The mentality of the morphinist is not always seriously impaired as evidenced by the fact that Coleridge gave the world much of his best writings while under the influence of laudanum, to-wit: *The Ancient Mariner*, etc. It is probable, however, that the world lost more from the paralyzing effect it had upon him during the latter years of his life.

DeQuincy turned his misfortunes to account by publishing his "Confessions of an English Opium Eater." He is probably better known by this work than anything else he wrote. Both of these writers claim to have freed themselves from their pernicious habits. We doubt, however, the truth of their statements in this respect.

DeQuincy states that many of the brightest and most intellectual men of his day were opium users and probably since that time habitues have been steadily on the increase both in England and America. Among these brilliant habitues we know Robert Hall, the noted preacher and William Wilberforce, who stopped England's slave trade in England, and in Amer-

ica; also, we know of the eccentric and satirical John Randolph of Roanoke.

Morphinism, therefore, shows no respect for creed or nationality. All classes of society are represented among its habitues. We have often noticed, however, that heredity influence plays a very significant role in the development and formation of the habit. In other words, those of inherited neuropathic tendency—which means, in common parlance, lowered nerve force—are easy victims of the habit. The Biblical statement that "The sins of the fathers are visited down upon the third and fourth generations" is very true in respect to our physical ills and weaknesses. Our progenitors are, therefore, responsible, to a degree at least, for the use of opium and its derivatives.

"Morphine daily incapacitates the noble, busy physician, defiles the sacred desk, sullies the ermine of the bench, ruthlessly enters every profession, and fastens its terrible and merciless fangs upon every class of people. No station in life is exempt from the baneful influences of this steadily growing evil. All classes contribute their quota to the insatiable army, which, as without a leader, invariably meet the same fate unless rescued by such of the medical profession who have given the subject sufficient attention to recognize the truly charitable services that can be rendered in such cases, and who do not necessarily consider the substantial financial returns accruing therefrom."

It has been the privilege of the writer to be closely associated with this large and increasing class of unfortunates for a number of years. We have, therefore, studied their habits both by day and night from

almost every view point. Their peculiarities and idiosyncrasies are well known to the physician who is constantly associated with them.

ANALYSIS OF CASES.

I will make an analysis of the last 121 cases I have treated; of these 89 were men, and 32 were women. They were of all ages, from twenty to seventy-five years, but the vast majority about middle life—between thirty-five and fifty. The time of addiction, none were less than five years; some as high as thirty years of use, while the majority have been using it twelve or fifteen years. Of the 89 men, 45 were doctors, more than fifty percent. Of the total number of men and women (121—62 were doctors, druggists, members of doctor's family, trained nurses or more than fifty-one percent. connected with medicine.

- 1 used morphine and hyoscine.
- 1 used laudanum and whiskey.
- 3 used cocaine alone.
- 5 used laudanum alone.
- 7 used morphine and cocaine.
- 17 used morphine and whiskey.
- 87 used morphine alone.

121

Of these 121 drug habitues—112 used morphine, 92½ percent., and 106 used the hypodermic needle, 95 percent. It is a very difficult thing to find out with absolute certainty why these 121 people commenced the use of morphine; but at least 30 of them commenced on some serious or painful disease, and 25 had commenced the whiskey habit first. It is my opinion that a much larger number had commenced on the use of whiskey, therefore, physicians should be extremely careful in their use of morphine when sobering a patient who has been on a spree.

During the four years that I have known most of these 121 habitues there have been among them 13 deaths; one from pellagra, one from pneumonia, one from locomotor ataxia, one epileptic, whom train killed; two from tuberculosis, one from diabetes, two from heart disease, two from Bright's disease, one from toxemia and one from a too sudden withdrawal.

With the exception of the pellagra and pneumonia, all of these had their diseases before they began to use morphine so that of the 13 deaths, only two of them can be in anyway attributed to their habits. One of these died in a hospital from the too sudden withdrawal of morphine; the other died in my Sanitarium. He was over seventy-five years old and had taken morphine for more than thirty years. He endured the withdrawal of the drug fairly well but about ten days after the drug was entirely withdrawn, he suddenly developed symptoms of profound toxemia and died in forty-eight hours.

Of these 121 patients, there were four or five who habitually used atropine with their morphine (I suppose from having originally started with the morphine and atropine tablet.) One I remember who took as much as one-fifteenth of atropine sulphate every three hours in addition to two and one-half grains of morphine at the same time. In these cases, the combination was having a much more deleterious effect than morphine alone, and it was always doubly as hard to break up the habit.

In comparing men and women in my experience, women, the boasted-bearer of pain, fails entirely when she encounters the pains of the morphine withdrawal and she is three or four times as hard to break of the habit as is man.

THE PAINS AND TRIALS OF WITHDRAWAL.

We will first consider what it is to stop morphine without medical assistance, and then what medicine can do to alleviate this suffering.

When DeQuincy and Coleridge made their attempts to free themselves from the bonds of opium, it seems that there was no medical knowledge then existing that could aid them in the least. If there was, neither one of them could find it. Probably there was very little medical knowledge on this subject until after 1880 when Lewenstein and Mattison wrote their articles on methods of treatment. As late as 1868 I can give this quotation from Dr. Ludlow of New York, who says: "I am led to believe in the records of fatal lesions, mechanical childbirth, cancerous affections, the stake itself contains no greater torture than a confirmed opium eater's experience in getting free."

Let us see now what DeQuincy would have suffered without our present knowledge if he had freed himself entirely from laudanum. He tells us himself of dropping from 320 grains of crude opium to 40 grains *per diem* with but little discomfort. Dr. Jennings, of Paris, speaks of a physiological limit, that is, a certain amount of morphine (or opiates) which everybody's system will take up and utilize, and any amount beyond this is a waste of the drug because it is thrown off by the system without being used.

He places this physiological limit at 12 centigrams or a little less than two grains per day. I think Dr. Jennings makes the error of making every one's physiological limit the same and then makes the limit too small for the majority of patients. I am inclined myself to place this lim-

it with the average patient at three or four grains *per diem*. But the reason why DeQuincy was able to make this large reduction, almost without suffering.

The first effect of any considerable reduction is the most profound sleep. This may last continuously almost twenty-four hours. After this, sleep will become less and less in soundness and amount each night. Let us suppose that twenty-four hours after this sleep, Mr. DeQuincy leaves off his wonted morning dose. He feels a constant propensity to yawn, gape and stretch, together with languor and general uneasiness. As the hours pass (without the accustomed dose) shudders run thro' the frame with alternate fever heats and icy chills, hot and cold sweats—especially along the spine—while a dull, incessant, indescribable ache pervades the bones. Then follows a host of sensations as of burnings, tinglings and twitchings, seeming to run along just beneath the surface of the skin—over the whole body. These are the symptoms of a dose delayed ten or twelve hours.

For illustration, let us suppose that Mr. DeQuincy's courage has not failed him—that he has continued to fall from forty grains a day until he gets down to a grain or two a day—that he has even taken thirty or forty days to do so; and what are his symptoms? He has not slept "one wink" for many days. He has a severe diarrhoea—so bilious that the actions burn the rectum in an almost unbearable way as they pass. He is vomiting almost everything he eats; his stomach and bowels are so relaxed that there is an enormous amount of flatulence. The gas is pressing on the already enfeebled heart and causing colicky pains—sometimes very severe. He has caught a severe cold,

beginning in the nose and going down into the lungs (it is the rarest thing in the world for the morphine habitue to "take cold" while using the drug). He is sneezing—sneezing all the time. (Sneezing is so certain a symptom of this stage of "coming off" that during treatment if a patient does not exhibit it at this time, you may know he is getting morphine "on the side"). He is in a constant and profuse perspiration. His heart is so feeble that he can not take a step without panting for breath. And this is not the only trouble from the heart—it is not strong enough to force the blood all over the body so that the extremities suffer, *ie*, the brain and the legs. In the legs he has the continuous cry of the tissues for more blood. This is felt in constant nagging pains, especially in the calves. (This is not to be confused with sciatica, which so often follows the withdrawal of the opiate).

The brain from absolute sleeplessness and deficient blood, suffers with complete inertia. The subject can not read for he has no power of attention; he can not think; he frequently can not recall the name of his nearest neighbor. There is a most general wretchedness; time seems to be interminable; he suffers from extreme restlessness, a desire to be moving every second and yet too feeble to take a single step.

If Mr. DeQuincy's courage keeps up and *he lives*, he will drop the last one-half grain of opium. Then every symptom mentioned above will increase in severity and it will be a week before a single one of them begins to amend. The nausea and vomiting will gradually stop; the diarrhoea will check and other symptoms slowly improve. Sleep will be the last thing to become normal.

Thirty days after the last dose of

opium, Mr. DeQuincy will have improved very much in his personal appearance; he will have gained 20 pounds or more; his eyes will be bright; his complexion will be as clear as a baby's. There is a wonderful rapid cell regeneration everywhere except in the brain and nervous tissue. Perhaps it is the shock from loss of sleep, but he is still suffering from mental inertia. He cannot apply himself; he still has an aversion to reading, and any continuous employment seems utterly impossible. This may last several months.

In those days it was not uncommon for men in desperation to try to give up their habit and die in the attempt. It is probable that at least one-third died in trying to give up opium. Let us see now what we can do to prevent this suffering and death.

It is easily seen that it is impossible for a patient to go through anything like this, and continue his ordinary work, or observe the ordinary cares of business and family life, therefore, his placing himself in a sanitarium seems to be an absolute necessity. The kind of sanitarium? My own view, and it has certainly worked well in my own experience, is one with as much freedom as is compatible with the patient's cure

I have no barred windows, no locked doors, and as soon as I get the patient off of morphine, I place him on his honor and let him go about by himself. It is not often that I am deceived. No royal road to the cure, no specifics.

MEDICAL TREATMENT.

There are some authorities, as Dr. McBryde of England, who believe in large doses of the Bromides. This treatment consists of giving, from the commencement of the withdrawal two or three hundred grains of Bromide of Soda per day, until by the

time the withdrawal is complete, the patient is thoroughly saturated with the Bromide. I have had but little experience with this. There are many others who believe in hyoscine treatment with rapid withdrawal.

My own method is this, and by it I expect to withdraw the morphine in an ordinary patient entirely within two weeks, regardless of the amount he is taking. After waiting twenty-four or thirty-six hours, or until the patient becomes accustomed to his surroundings, I ask the patient to give me all of his morphine, and then begin what I think is very important—elimination by the bowels—calomel and C. C. pills at bedtime, with two ounces of castor oil in the morning. I prefer the castor oil, but if the patient is unable to take it, I then use any of the salines.

I defer the morning dose of morphine until his bowels act freely. All during the rest of the treatment his bowels are kept freely open. In regard to the morphine—while I am reducing it I give it at regular intervals four times a day—at 7:30 a. m., at midday, at 5:00 p. m., and 8:30 at night. The patient has some difficulty at first of waiting for these hours, but most of them become accustomed to it in a few days. I always use the hypodermic needle in giving the morphine because it is the only way of keeping the patient from knowing the amount he is getting. It matters not the amount the patient is taking, I expect to get him down to his "physiological limit" in about three days and then to stop the morphine entirely in nine days more.

After the morphine is stopped, strychnine in decreasing doses is given for three days more, when the needle is stopped entirely. Let us see now what we have to look out for while the patient is "coming off."

First, a heart that is weak from the loss of a powerful stimulant that has been used for years. Second, stomach and bowels that are fixing to run "amuck". Third, insomnia, and fourth, pains, all sorts of pains.

For heart and intestinal tract, I use a tonic, administered every two hours while awake, containing Tinct. of Capsicum, Compound Tinct. of Gentian, Tinct. Belladonna, Tinct. of Nux Vomica and Compound Tinct. of Cinchona. If the heart needs any further stimulation, I use Tinct. Digitalis by the mouth or Sparteine Sulphate—one grain doses, hypodermically. If there is diarrhoea, I use enough Bismuth or Tinct.-Catechu to keep under control.

For the excessive acidity of the stomach, I use Bicarbonate of Soda, *ad libitum*. For the flatulence, I use assafœtida. For insomnia, I use Veronal Sodium, Trional, or Sulphonal, avoiding religiously any preparations of chloral for as Dr. Crowthers has pointed out, these are invariably followed by increased craving for morphine.

I stop all hypnotics at the earliest possible moment, advising the patient to spend some sleepless nights rather than keep them up very long. For the pains, I occasionally use acetanilid, guarded with Caffeine, but my chief reliance is the hot bath, Russian or Turkish or the ordinary hot bath just as hot as the patient can stand. In the worst stages, while in the hot bath, the patient is entirely easy and remains so for half an hour afterwards. If the pains are very worrying, there is no reason why the patient should not use the hot bath every hour or so until the pains are stopped. I also use the various forms of electricity and the electric hot box for the pains and to allay nervousness.

Thus in two weeks, with the treatment given above, I have withdrawn the drug from the patient, almost without pain or suffering. But the fight is not over yet. The patient's chief troubles now are insomnia and both mental and physical inertia, therefore I try to persuade the patient to stay with me at least six weeks longer. I continue the tonics for several weeks, look after his diet carefully, and gradually get him to taking exercise. There is a wonderful rapid regeneration of cells everywhere except in the nervous tissues, therefore I do not like him to go home until these are partially restored at least.

"Drug addiction is so little understood by physicians in general that it is almost universally regarded as an incurable disease, and by their inattention to it they practically confess themselves inadequate to the task of curing it.

The successful treatment of drug addiction demands three requisites, as follows:

First—the confidence of the patient. Everyone knows the intense degree of secretiveness that develops in an opium or morphine habitue. The fear of an interruption in his supply is sufficient to arouse an almost superhuman energy to forestall it, and, indeed, the most careful vigilance on the part of the shrewdest physician is often entirely inadequate to cope with the schemes of the most ignorant victim of drug addiction. Many habitues will object to treatment for the reason that they have all experienced the pangs of withdrawal and have an idea that if treatment were taken they would be obliged to pass through extreme torture before they could obtain freedom, and consequently postpone the attempt from one season to another.

There are but few institutions now in existence in which the sudden withdrawal system is practiced, unless it is done under the influence of certain other narcotics, which system is perfectly rational and proper, but applicable only to those who are strong and vigorous. Some institutions claim from 90 to 95 percent. of cures by this method, known as the "quick cure" system, but in order to obtain these results, the cases must be carefully selected. Confidence, therefore, is the first prime requisite to be sought for; without it everything will fail. The physician must assure his patient that in case he is not fully supported by the treatment, if a craving for the drug comes on, he will see to it that he is supplied with enough to meet his needs, and in no instance must this promise be broken. If the patient is once disappointed, rest assured he will institute measures to prevent any such calamity in the future.

The next requisite is, the patient must be willing to be cured. Paradoxical as it may seem, one is frequently consulted by opium or morphine addicts for relief from the craving, while at the same time they are daily consuming more of the drug than they actually need to be free from annoyance, and who after treatment, after the craving has been removed, express, and often gratify, a desire for a single dose, merely to note the results. The results are too well known to require mention, and too strong injunction against such procedure cannot be given. The collaboration of the patient with the physician is absolutely essential.

The Third requisite: The physician who essays the successful treatment of drug addiction must possess the means to cure, and exercise good judgment in employing them. An

adequate and reliable knowledge of the various phases presented by a number of these cases, and the special means to be employed in effecting successful terminations, can only partially be obtained by reading and study; actual experience is necessary. It is by experience only that the physician will be able to accurately determine the patient's needs, whether he really requires the drug or whether he only thinks so; to accurately determine the amount of actual suffering some may endure without complaint; and also to make a liberal allowance for the profuse and exaggerated pleadings of those whose most trifling discomfort renders them inconsolable."

"The tissues of the life to be
We weave with colors all our own,
'Till in the fields of destiny,
We reap as we have sown."

THE PHYSICIAN'S OPPORTUNITY.

*By Fillmore Moore, M. D., Aiken, S. C.

The tendency of physicians is to be practical. They are paid to be practical, therefore they are usually content to deal with the situation as they find it. They rarely move the previous question. They respond to the demand that relief be afforded quickly. If the patient is relieved he goes his way rejoicing and the physician rarely has the opportunity even if he has the inclination, to inquire into the fundamental wrong. He doesn't know what has gone before and he does not speculate as to what will follow.

If I may presume on your indulgence, I would like to recite a little of my personal experience. About the year 1882, I entered into practice in the city of New York. My practice was confined to what was called

chronic cases. Chiefly of the classes known as nervous prostrations, neurasthenia, neuralgia, rheumatism, nervous dyspepsia, uterine displacements and disorders of similar type. I was taken into partnership with a man who had a large practice among that class of disorders, and I had an unusual opportunity to see and study them. In 1883—4, I became impressed with the superficial or inadequate character of the diagnosis or understanding of these troubles, and I began a series of exploratory experiments. Many of the cases that came under observation had been under treatment by some of the eminent men of the time, such men as Weir Mitchell, McLane Hamilton, T. Galiard Thomas and others, so I had the benefit of their opinions. I also had a great incentive, as I was young enough to be ambitious and I wanted to succeed where great men had failed.

The further I explored, the more certain I was that even better men had not gotten at the bottom facts in these cases. There was nervous prostration and insomnia and neuralgia, etc., but why and whence and how?

Some day I may publish the details of my investigations. For present purposes let it suffice if I tell you briefly my conclusions.

First of all, I conceived the idea that there must have been an original fault or failure somewhere in the organism, that if found, would make it clear how all these signs and symptoms had come about. I was in search of this first cause of failure, or departure from the norm. It did not take long to locate the region. I soon discovered what ought to have been evident to all and what is still overlooked by many.

The alimentary tract in every instance was faulty and failing, both as a digestive organ and as an eliminatory apparatus. In nearly every

*Read before the South Carolina Medical Association, Rock Hill, S. C., April 17, 1913.

case I succeeded in eliciting a history of such failures from the patient.

When I had got the clue to the original site of the trouble, I pursued my explorations with enterprise and energy and the developments were remarkable—in some cases startling. No case that I can now recall failed to show evidence of failure in function, and many showed marked lesions, and there were accumulations of retained food and faecal matter that had undergone singular transformations.

The clearing of the bowel and the general system of these accumulations was no small task. The important thing to fix attention on, was that in every case where the bowel was cleared and kept clear long enough to also drain the system of all that had gotten into it from the defective sewer, all the symptoms of disease vanished.

It is not my purpose in this paper to recommend any special treatment. It is only to show what the real nature and causes of a large number of diseases are and to give some principles for guidance both in diagnosis and in treatment.

Here then, are some generalizations and conclusions which after thirty years of experimental exploration, observation and demonstration, I submit:

The first is that a large number of the cases that are called by various names, are results of a failure in the alimentary tube.

Second, that to properly comprehend and deal with disease, we should bear in mind that there is one, and only one life force which generates or creates and re-creates the body.

Third, that all disease and disorders of whatever kind, are really negations of the life force—obstacles and encumbrances to the full and

free flowing and functioning of this force.

Fourth, it is the purpose and tendency of the life force to re-create and maintain the organism in health.

Fifth, as the organism has a natural tendency towards health and as disease is an obstruction in the way of the life force, it should be the business of the physician to remove these obstacles and to prevent the further introduction of material that may become obstacles.

The high office and privilege of the physician is to disencumber the ways of life and make straight and smooth its paths.

This brings me to the second section in my attempt to present to you the great opportunity as I see it. The medical profession must have a philosophy, a broad and comprehensive grasp of the whole field in which it operates. It cannot retain its place among the learned and noble professions without such vantage ground. Fortunately for us such a philosophy is now springing up in our midst. It is distinctively and pre-eminently a philosophy of life or life force, and this is the physician's field. It recognizes life as *the great reality*. And having been born of the same spirit that gave birth to the modern scientific movement, and being familiar with the results of scientific investigations, it has discovered and now declares that life is both creative and evolutionary.

It creates and recreates the forms (the cells tissues and organisms) which it requires. It is life or the life force that creates human bodies and recreates and maintains them in health. That the intellect is a product of life force. That it is the province of the intellect to think matter, to deal with the material universe. This new philosophy fur-

ther states that man is endowed with another power beyond the intellect, which is called the intuition, and it is by the intuition that he apprehends life in the essence. The intellect gives us science or a knowledge of material things. Intuition gives us reality, or a grasp of the things not seen and eternal. And it is this power (the intuition) that has revealed to the philosopher that life is an eternal flux or flowing. This philosophy is sometimes called the philosophy of change. It declares that life is without beginning and without end. It rejects the mechanistic view of life that is now held by certain scientists. It restores to us a philosophy of faith and hope—faith in life and hope for a vaster realization.

This brings me to the third phase of this view of the medical opportunity that I think is now presented to us.

Philosophy having revealed it to us that life is essentially creative, and that it must be generating, creating and evolving somewhat new and original to keep alive. We conclude that physicians also must be creative artists.

They, being men and products of the creative evolution of the life force ought consciously and deliberately to work with life and toward life's goal. Hence medicine must become a creative art and work, with ideals and aims worthy of life. The physician is now offered the opportunity to be a co-worker and creator with life the great reality.

And last, let me call your attention to what science, especially in the person of Dr. Carrel of the Rockefeller Institute, has contributed to this new and vaster opportunity for the physician.

In a series of experiments, he de-

monstrated and proved by laboratory methods, what I have demonstrated in practice. He has shown conclusively that the problem of generating and maintaining body cells and tissues in health and life indefinitely, is one of food supply on the one hand and of removal of debris on the other. Let me state that in a slightly different way. In order to maintain the body in health and alive indefinitely, two things are necessary. The one is an adequate supply of food free from hurtful ingredients, and the other is the prompt removal of the products of tissue metabolism or debris.

Apparently, Dr. Carrel has shown that the practical question for the physician, is how to feed his patients without poisoning them, and how to eliminate, promptly and adequately, the refuse, debris or products of tissue change. And he has come very close to proving the contention of the new philosophy, viz. that the body might under the conditions named, remain perennially young. The problem of elimination is complicated and confused by the fact that we have not alone the products of tissue metabolism to get rid of, but we also have the products of food metabolism in the digestive tube. Any food taken into the alimentary tract which is not absorbed and used by the organism, undergoes changes which make it unfit for nutritive purposes, and it too must be eliminated. If not promptly cast out by the bowel, it may be absorbed by the system and thus seriously embarrass the cells and tissues.

Carrel found that when the tissues are fed with pure food, and nothing but food, and just enough of it, and the products of tissue change are promptly and completely removed the tissues do not show any signs of

disease, and do not grow old nor die.

Prof. Woodward, of Yale University, has recently shown that certain animalculæ will live indefinitely if the environment is kept free from the products of their own activity.

In conclusion let me repeat that it is a growing conviction that medicine is now presented with a splendid opportunity. It has all that science has done and is doing, at its command. Science has been made very serviceable to man industrially, commercially and socially. But the chiefer and higher service is to be in the way of health and perennial youth, *of life*, full and free, and long.

It has been said that all the great ages were ages of faith.

We medical men now have the possibility of making this also a great age. We have a philosophy that is capable of inspiring faith and giving vision. Without vision, the physicians perish. The new philosophy takes up where the new science leaves off and it tells us that life is good and true, and beautiful in essence and potentiality. It gives promise of a larger life, a saner life. Life more abundant and lasting.

And then it tells us that life, especially human life, is creative, evolving and flowing on and up through higher and better forms.

And last and best of all the new era, is to have its art creations and expressions, not on canvas or in marble or bronze, but in human organisms, in bodies and minds, created and recreated after the patterns given on the Mount of Vision in the likeness and image of the Most High.

DUODENAL ULCER.

*By Geo. T. Tyler, A. M., M. D., Greenville, S. C.

Although the subject of my paper

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is Duodenal Ulcer, the area of the duodenum most frequently the seat of ulcer is so close to the pyloric outlet, and the chief ulcer-bearing portions of stomach and duodenum embrace a total surface of from three to four inches in length I have thought it better to discuss pyloric and duodenal ulcer, or as Dr. Murphy (Chicago) has named it, *gastro-duodenal ulcer*. Not that these conditions may not exist as entities, but the symptoms are often not definite enough to differentiate the two conditions.

When we think that a large percentage of cases of ulcer in this region demonstrated on the operating table have come with the complaint, "dyspepsia," "indigestion," "gas on the stomach," "sour stomach," it is small wonder that we need to recast our views of digestive upsets with a view to coming more accurately to a definite statement of the conditions. Dr. Murphy has said that in a few years the symptom hyperacidity will have given place to the term gastric ulcer. Many have taken the position that hyperacidity means ulcer of the duodenum, while others are reasonably certain from the histories alone, extending over a period of years with recurring attacks of epigastric pain, that the cause is ulcer at or near the pylorus.

All this goes to show that ulcer of the stomach and duodenum are more frequent in occurrence than we have thought; and that indefinite gastric symptoms point to ulcer more frequently than otherwise. Especially so is this important for us to dwell upon when such a large proportion of cancers have their origin in ulcer. The largest percentage of cancer is in the stomach being from 25 percent. in some tables to 40 percent. or even 50 percent. of all cancer cases

coming to autopsy. It has been shown that over 50 percent. of all gastric cancers have their origin in ulcer. (The Mayo Clinic gives 71 percent.) Admitting that 36 percent. is a fair proportion of gastric cancer, it is safe to say that 20 percent. of deaths from cancer, have ulcer of the stomach as the cause—a very sad commentary on our ability to recognize lesions which can be treated successfully before taking on malignant characteristics. While this toll on human life is preventable, the suffering which attends it can be alleviated and the patients restored to health.

With our increased facilities for diagnosis it is possible to come nearer the actual truth, but often such measures are not sufficient to establish a diagnosis in time to relieve the patient before malignancy has begun. Many times a patient has gone to the operating table only to have the surgeon open his abdomen and find the condition unoperable. The diagnosis may be confirmed; but no relief is afforded. The same procedure undertaken one or two years earlier would have allowed the surgeon a chance to help his patient. That after all clinical measures have been used, much uncertainty remains as to diagnosis, only to be cleared up by exploration, is evidenced by the report of the German Committee for Investigation of the Cause of Ulcer of the Stomach (1912). Any one who studies the clinical aspects of gastric ulcer in an unprejudiced manner will soon come to the conclusion that our knowledge of the gravest of all benign affections of the stomach is distressingly scanty. The nature of ulcer of the stomach has not been explained — The etiology of gastric ulcer in man is practically unknown—The diagnosis in most cases can be made only with

some degree of probability. And since there is so much uncertainty, is it not incumbent upon us, in view of the grave results attending symptoms that persist for months or even years, to urge that exploratory operation be undertaken to clear up the diagnosis and afford opportunity for relief?

No age is exempt from ulcer. It has been found in infants from two weeks to six months. Eutz in 1908 reported eleven cases of duodenal ulcer among 364 autopsies in infants. Griffith reported two cases, one six weeks of age. The greatest number of cases occurs between 25 and 45 years of age. A patient of mine now in his 70th year was operated upon at 68 for perforated duodenal ulcer.

The sex is predominately male, being 75 percent. of duodenal and 66 percent of gastric ulcer.

The higher location of the duodenum in the male may partly explain according to Dr. Mayo why it is never frequently the seat of ulcer. For the alkaline secretions of the pancreas and the liver do not rise to this position so readily as in women to neutralize the acid chyme.

Wilkie has shown from dissection of 40 subjects that the first inch of the duodenum (where 96 percent. of its ulcers occur) has a limited blood supply, on its anterior surface, it being terminal circulation. Now if any branch of this vessel, which he has named the super-duodenal artery, is obstructed, the area it supplies must necessarily become anemic, and in fact result in necrosis and ulceration; for the acid chyme in contact with this injured portion causes indigestion, leaving an ulcerated surface. The occurrence of gastric ulcer following extensive burns is explained by the pathological demonstration of thromboses of the blood

vessels in the wall of the stomach. Experiments too have shown that portions of the stomach wall deprived of circulation are digested if in contact with its secretion. This area of limited blood supply is quite in keeping with, and explains the pale area described by Dr. Mayo.

Another explanation based on anatomical structure is: the first portion of the duodenum is very thin walled, and is continued from the stomach in an anteroposterior direction. The stomach containing food sags but also rotates forward. It has more mobility than the duodenum, and puts this part on tension, in this manner limiting its blood supply. These three factors—tension on a thin walled area, having no peristalsis, insufficiently supplied with blood, and so highly attached that the alkaline secretions of the liver and pancreas cannot easily reach it, may explain why the duodenum is so frequently the seat of ulceration.

Again, that nerve influences play a part is true, for by experiments on animals where the vagus has been sectioned, it is easier to produce ulcer than when no nerves have been divided. And clinically we know the greater tendency to gastric disorders in the "nervous" individual. Additional evidence of the nervous influences in gastric ulcer is the occurrence of it in cases of *tabes dorsalis*.

Finally the frequent associations of symptoms in the epigastrium with those in the right iliac fossa, make one think of the former as secondary to the latter. Mr. Arbuthnot Lane is of this opinion as are also a number of other surgeons.

Occurring with ulcer, and frequently the result of it, are adhesions in the region of the gall bladder, duodenum, and stomach. These perigas-

tric adhesions often complicate the condition, and make diagnosis more difficult especially when jaundice has occurred.

The usual classification into acute and chronic ulcers is not clearly marked. The so-called acute ulcers are those consequent upon severe infections, pylephlebitis, abscess of liver, and other suppurative conditions; but they do not properly belong to the type of ulcer under discussion. I think nearly all ulcers are chronic. These are subdivided into indurated and non-indurated; but this distinction is made at the operating table, and gives little aid in the diagnosis, except in one particular; the presence of blood is necessary to establish a diagnosis of non-indurated ulcer, but is not a *sine qua non* in the diagnosis of the indurated type.

Symptoms.—The symptoms most frequently present and regarded as most important is *epigastric pain*. It is present in 95 percent. of the cases. It may be sharp, cutting, boring, a dull ache, or the severe pain of perforation. It comes at varying intervals, one to three hours after eating, maybe at night. The pains are intermittent, lasting for days and weeks. They disappear to return again. Histories of duodenal ulcer have extended over periods varying from five to twenty years—longer than in gastric ulcer, for the tendency to become malignant is small, whereas in gastric ulcer it is large. The pains are relieved by vomiting, taking of food, alkalies, or by any other procedure lessening the acidity of the gastric contents. Mennier in *Presse Medicals* suggests that milk relieves pain in a few minutes after taking if the condition be gastric ulcer, but if it is duodenal, 15 to 20 minutes are required for relief. *Hyperacidity*

is next in importance among symptoms. It is present in 40 percent. of cases analyzed. From a review of the literature, I think hyperacidity is present in the early stages; that if all cases examined could be tested earlier in their course, hyperacidity would be found as frequently as pain; that the reason is not found oftener is because the cases do not come to observation sooner. It is present most frequently with pain and is assigned by many as the cause. It has been noted also in association with hemorrhage. Late in the disease it may gradually disappear, giving place to anacidity. With hyperacidity there is often *hypersecretion*. Eruption gas is noted frequently and appears with the relief of pain; for according to Menier, the relaxation of the pylorus with the passing out of the alkaline or less acid chyme is coincident with the relaxation of the cordia; hence the eruption of gas with the relief of pain.

Hypermotility of the stomach is also present. X-ray pictures taken with bismuth meals show that the stomach empties itself more quickly than normal. Late cases where obstruction due to the constricting effect of the ulcer-scar show lessened motility. *Nausea and vomiting* occur in more than 50 percent. of the cases.

Hemorrhage is present in over 25 percent. It varies from the small oozing to copious vomiting of blood and the large tarry stools. Blood present in the stools and not in the vomitus, suggests duodenal rather than gastric ulcer.

Food retention, small amounts of food particles found in the stomach washings 10 to 12 hours after eating occurs in 33 1-3 percent of the cases. In a recent report of 140 cases of

gastric ulcer demonstrated at the operating table, Smithies (Mayo Clinic) found no evidence of food retention.

Anemia is in proportion to the blood lost or the nutrition of the patient.

Tenderness is present in 90 percent. of the cases. It is epigastric, or maybe to the right of the mid-line. In 50 percent. of Friedenwald's cases it was present in the back also, about the spine of the twelfth dorsal vertebra.

To show what some authorities regard as symptoms of diagnostic importance, I quote: Ewald and V. Eisellberg, blood and stools with pain, duodenal ulcer. Nendorfer: epigastric distress recurring at intervals—suspect ulcer. He also stresses hypermotility.

Graham (Mayo Clinic) Periodicity of pain 2-5 hours after eating, recurring at intervals of five to twenty years, means duodenal ulcer.

Schutz: Pain and hyperacidity.

Kreuzfueks: Hyperacidity in active stages.

For diagnosis we must depend more on the history than the physical findings. Periodic attacks of epigastric pain recurring from one to three or four hours after meals, relieved by reducing the acidity of gastric contents, with symptoms of hyperacidity, eruptions of gas, tenderness in the epigastrium should attract our attention to ulcer in or near the pylorus. Again symptoms of gastric disturbance not yielding to treatment in six to eight weeks should excite our suspicion of ulcer and further investigation be done. If looked for oftener, it would be found in a greater number of cases.

Treatment.—Cases with short history are medical cases. (I do not include here the acute perforations). Rest in bed on small amounts of li-

quid food at frequent intervals. Bismuth may have some good effect in coating the ulcers, and allowing healing to take place. Recently Doris and Demming have used scarlet red in olive oil in experimentally produced ulcer in dogs. They report that the growth of epithelium is more pronounced than when oil is alone used. I am more inclined to believe that rest in mind and body are both essential to improvement in these conditions.

If after 6 to 8 weeks of treatment the symptoms are not relieved, surgical advice should be sought, for the condition is then a chronic one, and most chronic cases of this kind are amenable only to surgical intervention. What operative procedure shall be used is foreign to this paper, my purpose being to urge that surgical advice shall be sought early in these conditions.

When we are given reports of the various clinics showing that over 85 percent. and as high as 98 percent. of the patients are relieved, and with this relief cancer is anticipated it is of sufficient weight to convince the most doubting that surgical measures should be resorted to more frequently and much earlier in this condition than has been done.

In perforation, surgery is the only chance; and then if in a few hours. In proportion to the time after onset that operation is undertaken, in that proportion is the chance of recovery. After 24 hours it is small.

When we think that the exploratory operation has only slight risk, that it may and does reveal conditions amenable to treatment, we should not hesitate to advise it. After accurate diagnostic measures have been used, if we are still uncertain, it is best to adopt the advice of one of our leading surgeons: "When in doubt, explore."

CASE 1.(Previously reported in Am. Journal) Gastro-Enterology. Male age 68. Complained of severe epigastric pain with nausea and vomiting. For some months he has carried a cake or biscuit to eat about 10:30 or 11 a. m., to prevent pain which would last until relieved by the next meal. Onset sudden, with severe agonizing pain in epigastrium, nausea and vomiting of clear yellowish fluid containing brownish streaks When seen, patient lay with hands compressed tightly over the epigastrium, thighs flexed on abdomen. He had an expiatory grunt, and board-like rigidity of the upper abdominal muscles. Chest normal, deep respiration impossible because of severe pain. Patient vomited while being examined. Operation five hours after onset; pea-sized perforation of duodenum 1 c. m. to right of pyloric vein or anterior wall of duodenum, from which contents escaped. Perforation closed by two rows of purse string sutures; wound closed with drainage; patient returned to bed in sitting posture with Murphy irrigation. Recovery uneventful. When last heard from one year after operation he was in good health.

CASE 2—Soldier, age 25. Previous history of typhoid fever. Complained of nausea and vomiting with pain in epigastrium. Food retention found with an acidity—no blood. Rest in bed on small amount of food failed to relieve. Operation; dense adhesion between pylorus and duodenum; adhesions between the gall bladder and transverse colon. Finney pyloroplasty with drainage of gall bladder. Recovery. Patient seen eight months after operation. He was entirely free from symptoms, reported a good appetite and excellent health.

PUBLIC HEALTH

THE NEED OF FULL-TIME COUNTY HEALTH OFFICERS.

*By G. F. Klugh, M. D., Cross Hill, S. C.

*Read before the Third District Medical Association, Abbeville, S. C., September, 1913.

I have chosen for my subject one which I shall try not to attempt to cover in all of its details, my purpose being to bring it to your attention for free discussion and criticism.

South Carolina has ever been on advance guard in the progress of medicine and today her Board of Health is one of the best. Yet, a handful of men cannot alone and without adequate help handle our health problems as they should be handled and give the people the protection they should have and could have if the knowledge given us by laboratory and clinical genius were properly used.

To do its best work the State Health Officers should have an assistant in every county, a full time county health officer. This officer should be a specialist in preventive medicine, a sanitary engineer, an organizer and educator.

As yet the busy practitioner has neither time, authority, inclination nor special equipment to properly

handle questions of this kind. This is recognized in cities, and provided for. Why should the country people be deprived of this same protection? The majority of our people in South Carolina are in the country and small towns without health officers, and without protection. If they are not freed from the shackles of disease the whole State suffers economically and in physical degeneration. The city pays its share of toll, also when its residents visit the country and return with typhoid fever, malaria or other diseases.

The county health officer should have the same powers and duties as a city health officer, namely: Collection of health, birth and death statistics, investigation of obscure cases of disease by laboratory means, and of sources of epidemics; institution of quarantine, thorough disinfection. In addition such an officer should organize and enlist the help of the physicians and co-ordinate their efforts to give concentrated warfare against disease and last but not least, should by precept and example disseminate knowledge among the laymen regarding sources of disease, methods of dissemination and of prevention.

EXCERPTS FROM LAY PRESS

FLORENCE COUNTY DOCTORS MEET.

Florence, Oct. 9.—The annual meeting of the Florence County Medical Association was held in this city on

Monday night, and the doctors entertained at the home of Dr. and Mrs. Benjamin G. Gregg, 213 South Coit street. The meeting was held in the parlors of the Gregg home, and

there was quite a number of the members present from all sections of the county.

Shortly after the visitors arrived, they were invited to the dining hall, where a sumptuous and appetizing supper had been prepared by Mrs. Gregg, and the guests enjoyed this innovation in county association meetings.

Supper over, the visitors and guests repaired to the parlors, where the meeting was called to order by Dr. C. D. Rollins, of Lake City. After the routine of business had been carried out a paper, a most interesting and instructive one, on "Pellagra," by Dr. W. S. Lynch, of Scranton, was read and discussed.

Dr. Fitzmaurice, health officer of the city of Florence, read a paper on "The relation of the Doctor to the Board of Health." This paper was interesting and contained many valuable suggestions which were well received, and which brought forth a resolution from the Association endorsing the efforts of the health officer of the city of Florence and the Board of Health in their efforts to stamp out disease and to make the city and community a healthful one, and agreeing to support them in their efforts.

The death of Dr. T. B. Hinnant, of Lake City, which occurred since the last meeting of the Association, was voted and appropriate resolutions were submitted, adopted, ordered sent to the family, entered in the minutes and published. Dr. Hinnant was one of the oldest members of the Association. His wise counsel and advice at all meetings and his high standard as a man and a physician were enough to call forth the encomiums of his fellow physicians and others.

The annual election then followed

and resulted as follows: Dr. Benjamin G. Gregg, of Florence, president; Dr. W. S. Lynch, of Scranton, secretary and treasurer; Dr. C. D. Rollins, of Lake City, censor.

After a vote of thanks to Dr. and Mrs. Gregg, for their generous hospitality and entertainment, the meeting adjourned.

PAINTING OF JOHN C. CALHOUN.

Portrait by Healy Presented Tillman by Surgeon John W. Ross.

Washington, Oct. 10.—Special: A very fine oil painting of John C. Calhoun, by Healy, one of the celebrated artists of ante-bellum days, has been presented to Senator Tillman by Surgeon John W. Ross, U. S. N., retired. The portrait was painted in 1845.

Dr. Ross, who is now living at Pasadena, Cal., was born in Tennessee and distinguished himself especially during the yellow fever outbreak in Memphis in 1878-79. For his extraordinary heroism at this time the President advanced him eight numbers in grade.

Dr. Ross was retired far in advance of the regular retiring age because of disabilities incurred in the service. However, he volunteered for duty when the war with Spain began and performed valuable work in Cuba, for which he was highly commended by his superior officers, including Dr. W. C. Gorgas.

W. F. M.

DR. BABCOCK TO SPEAK IN AUGUSTA.

Special to the Record.

Augusta, Ga., Oct. 31.—Dr. J. W. Babcock, of Columbia, the man who first recognized pellagra as being a disease prevalent in the United States, and who won fame thereby, will address the Tenth District Medical society at their annual meeting in this

city next Wednesday, November 5th, on the subject of, "The Medico-Legal Relations of Pellagra."

Dr. Babcock is slated as the first speaker on the program. The physicians in this district regard themselves fortunate in securing Dr. Babcock to address their society. The officers for the ensuing year will be elected at the meeting here on the 5th, and a delicious dinner has been arranged for the visiting guests. The meeting will be held in the University Medical college.

TO GUARD CHILDREN AGAINST
DISEASE.

York County Physicians Agree to Examine
Scholars Free, Trustees to Pick
Their Men.

Special to the State.

Yorkville, Oct. 21.—The York County Medical Association at its last meeting passed resolutions pledging the members to examine school children free of charge. The resolution provides that the trustees of each school shall select the physician whom they shall wish to serve at that school.

MEDICAL COLLEGE OF SOUTH
CAROLINA.

Special to The State.

Charleston Oct. 11.—This the first session of the Medical College of the State of South Carolina as a truly State institution, began Wednesday, October 1.

The college has this year an enrollment of 135 men, 25 of whom are freshmen in medicine, and 20 of whom are members of the junior pharmacy class. This is a slight decrease over the enrollment of last year, which is explained by the fact that the entrance requirements have been raised and very rigidly enforced.

There is a considerable percentage of the freshmen holding bachelor degrees, and all have an education equivalent to that given by a four year high school. The college is this year doing a very high grade of work, and it is expected that in a short time, probably at its next meeting, the educational council of the American Medical Association will raise it to the rank of "A" colleges.

A very important factor in the social life of the students was removed when the dean announced at the morning of the opening that hereafter no Greek letter fraternities would be allowed in the school. This action was made necessary because of a State law against fraternities in all schools receiving State aid.

The students are given all the work that they can possibly do, and so they have little time to give to social pleasures, even the association with each other in dormitories being lacking, so that the men coming from the literary colleges and from their homes are made to feel quite a difference in the social atmosphere. The fraternities to a considerable degree reduced this difference, and brought groups of students together socially. It is with regret that the students see the passing of the fraternities.

SURGEONS ELECT OFFICERS.

A. C. L. Association Honors Two
South Carolinians.

Montgomery, Ala. Oct. 15.—Dr. J. N. Baker, of Montgomery, was elected president of the Association of Surgeons of the Atlantic Coast Line Railroad yesterday afternoon at the first day's session of the Association's ninth annual convention. Other officers elected are: Dr. A. M. Brailsford, Mullins, S. C., first vice-president; Dr. P. P. Lane, Waycross, Ga.,

second vice-president; Dr. C. P. Aimar, Charleston, S. C., secretary and treasurer, re-elected.—News and Courier.

WISCONSIN FALLS INTO LINE FOR
RACE PROTECTION AND
CRIME ELIMINATION.

Wisconsin has fallen into line with other progressive states to check the deterioration of the race. On July 25 the lower house of the legislature passed a bill requiring a certificate of health from both contracting parties as a condition of obtaining a marriage license, and examinations by a physician are required. Both houses passed a bill providing for the sterilization of the feeble-minded, epileptic and criminal insane in state and county institutions.

It is only by such heroic measures that the future well being of the race can be assured. Criminality, insanity, degeneracy, are all increasing in the ratio of population. There has been too much sentimentality about such matters. The race must not be permitted to decline for the individual enjoyment of the few who are unfit to be parents. We choose the best parent stock for the propagation of our horses, cattle, sheep and hogs, and emasculate the unfit, that they may not father a deteriorated offspring. Man alone, Nature's highest type, is permitted to multiply at random, like the weeds of the roadside. Wisconsin has made a distinct stride forward. We hope it will take another step forward and include in the sterilization class not only the criminally insane, feeble-minded and epileptic in state and county institu-

tions, but the habitual criminal as well. It seems to be the only solution of the problem of the rapidly increasing ratio of criminals to population.

The requirement of a physical examination and health certificate of candidates for matrimony is the right idea. Here, again, sentimentality has been permitted to overrule common sense. The tubercular, the syphilitic, the cancerous, and victims of hereditary diseases or tendency to disease should not be permitted to reproduce weaklings.

The layman does not realize the daners attending indiscriminate reproduction. Thoughtful physicians, settlement workers, sociologists and criminologists know and deplore it. Max Nordan, Lombroso and Ibsen have done a great work in calling attention to it; but the common people do not read scientific treatises nor see Ibsen plays. The leaven works, however, if slowly, as witness the several states which have passed laws similar to those recently passed by the Wisconsin legislature. In union there is strength, but in the union of independent states there is also weakness. Residents of Wisconsin found unfit to marry and reproduce may go to another state, where such laws do not exist, marry and return to their own state, which is powerless to molest them. But, state following state, the time will come when every state will have adopted such laws, and evasion of the law will be rendered impossible. Indeed, it is not improbable at the present rate of progress that people now living may see it accomplished. God speed the day.—*Editorial Journal Arkansas Medical Society.*

BOOK REVIEW

**DISEASES OF WOMEN, MEDICAL AND
Surgical Gynecology,** by Chas. A. L. Reed, A. M., F. C. S., M. D. Fellow of the college of Surgeons of America; Professor in the University of Cincinnati; Gynecologic Surgeon to the Cincinnati Hospital, the German Deaconess' Hospital, and the Jewish Hospital; Former President of the American Medical Association; Author, "Text Book of Gynecology," "Marriage and Genetics," etc. With four hundred and forty-eight Illustrations in the Text, New York and London D. Appleton & Co., 1913.

This is one of the most practical yet comprehensive books we have seen on this subject. The style of the author is charming and it is one of the few books the reader really would like to read from cover to cover if possible at one sitting. The sequence of the subjects strikes us with peculiar interest.

Again the whole subject has been treated under the head of medical and surgical gynecology and this is the only way in our opinion that the subject should be handled. We heartily recommend this volume as well worth purchasing.

SURGICAL CLINICS OF JOHN B. MURPHY M. D., Volume II, Number V. (October, 1913.) The Surgical Clinics of John B. Murphy, M. D., at Mercy Hospital, Chicago, Volume II, Number V. (October, 1913.) Octavo of 174 pages, 52 illustrations. Philadelphia and London: W. B. Saunders Company, 1913. Published Bi-Monthly. Price per year: paper, \$8.00; cloth, \$12.00.

The October number of Surgical Clinics continues to maintain the high standard set forth at the inception of the idea of publishing such a work. We fail to see how any surgeon or general practitioner for that matter can get along without this work. A few of the subjects treated follows: Double Inguinal Hernia—Some Italian Statistics—Technic of the Andrews Operation.

Appendicitis—Differential Diagnosis; Perforations, Treatment of General Suppurative peritonitis.

Ankylosis of Hip Following Sore Throat; Metastatic Arthritis; Arthroplasty.

Ankylosis of Hip Following Sore Throat; Puncture of Uterus by Curet and drainage of Retro-uterine Abscess. Remarks on use of Curet. Resection of Bowel. End-to-side Suture. Anastomosis.

Talk on cancer by Dr. W. L. Rodman of Philadelphia (At the Clinic, on Thursday, June 5, 1913.)

DIAGNOSIS METHODS—CHEMICAL

Bacteriological and Microscopical, A Text-book for students and Practitioners, by Ralph W. Webster, M. D., Ph.D., Assistant professor of Pharmacological Therapeutics and Instructor in Medicine in Rush Medical College, University of Chicago; Director of Chicago Clinical Laboratory.

Third Edition, Revised and Enlarged with 37 colored plates and 164 other illustrations, Philadelphia: P. Blakiston's Son & Co., 1012, Walnut St., 1913.

Dr. Webster has given the profession an exceedingly valuable book. It is necessary to buy a book on this subject at least every year or two if one intends to keep in touch with the latest advances. This is the third edition since 1909.

We were pleased with a number of statements of the author. For instance, he does not put aside an old method of procedure for a new, simply because it is new.

The chapter on the blood is especially fine.

The printers deserve credit for the make-up of the book, the print, binding and illustrations are all very creditable and the price is only \$4.50.

THE DISEASES OF CHILDREN, by Henry Enos Tuley, M. D., late professor of Obstetrics, University of Louisville, Medical Department; Visiting physician Masonic Widows' and Orphans' Home, Louisville, Ky.; Secretary of the Mississippi Valley Medical Association; Ex-secretary and Ex-chairman of the Section of Diseases of Children, American Medical Association; Ex-president American Association Medical Milk Commissions,

etc., with one hundred and six engravings and three colored plates; Second revised edition; St. Louis: C. V. Mosby Company, 1913.

Dr. Tuley has given us an excellent work. He has had a large experience in this subject and for many years has been a well known writer. Perhaps no one in the middle west is more competent to write an attractive and valuable book on this subject and it is well to have books come to us from various sections of our great country.

The illustrations are good and it is a work well worth while for the general practitioner and student to have in the library.

INTERNATIONAL CLINICS, A Quarterly of Illustrated Clinical Lectures and especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Paediatrics, Obstetrics, Gynecology, Ophthalmology, Otology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene, and other topics of interest to students and practitioners, By leading members of the Medical Profession throughout the world, edited by Henry W. Cattell, A. M., M. D., Philadelphia, U. S. A., Volume 3, Twenty-third Series, 1913; Philadelphia and London: J. B. Lippincott Company.

These volumes which have for their purpose the resume of our knowledge of the advances in medicine and surgery are highly interesting, every one of them. They appear to us to have been compiled with great care and at considerable expense. They thus should become permanent acquisitions to the library, for the print, illustrations, paper and the binding deserves to live indefinitely. The price per volume is \$2.00.

HOSPITAL OF THE PROTESTANT

Episcopal Church in Philadelphia Medical and Surgical Reports of the Episcopal Hospital Volume 1. Philadelphia: Press of Wm. J. Dornan, 1913.

This is a most excellent resume of the work done at this well known institution. There are many papers published here that have been read as society reports by the

staff of the hospital. The entire volume is a credit to the institution and the high class of work it is doing.

A CLINICAL MANUAL OF MENTAL Diseases, by Francis X. Dercum, M. D., Ph.D., Professor of Nervous and Mental Diseases, Jefferson Medical College, Philadelphia. Octavo of 425 pages. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, \$3.00 net.

This is one of the most timely books which has come to the reviewer's desk in a long while. Almost every general practitioner will find the book to fill a long felt want. The training given in the various medical schools in the mental diseases is superficial and yet the practitioner finds quite a large group of patients suffering from mental diseases.

The book is a manual and yet quite comprehensive and one just the right size for the busy doctor.

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EDGAR A. HINES, M. D., Editor, Seneca, S. C.

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EDITORIAL

CHRISTMAS GREETING.

THE Editor-Secretary wishes the members of the South Carolina Medical Association a pleasant and enjoyable Christmas.

The Association has had a prosperous year. For the first time in its history the membership has grown every month in the year. In numbers we have passed the 700 mark and are pressing forward toward the 1,000 we have a right to claim as our own.

We are in a position to undertake greater things. We have a common interest. We have comparative harmony in our ranks. We have many members whose integrity, whose en-

ergy, whose capacity especially fits them for virile initiative and leadership. We have a glorious and inspiring history behind us. There is but one thing for us to do—Go Forward!

WHAT CAN LITERATURE DO FOR ME?

IN a delightful little book just off the press by Prof. C. Alphonso Smith, Poe Professor of English in the University of Virginia, we find an excellent suggestion for the medical man to appropriate.

The author says that literature can:

1. Give you an outlet.

2. It can keep before you the vision of the ideal.
3. It can give you a better knowledge of human nature.
4. It can restore the past to you.
5. It can show you the glory of the commonplace.
6. It can give you the mastery of your own language.

We are profoundly impressed with the importance, indeed necessity for the doctor, every doctor, to keep in touch with the best books and the best literature.

It has been our custom to call special attention to this subject once a year. This year we present the views of two other contributors. We shall continue to make every effort to offer in our Book Review Department comments worth the time and trouble for perusal.

THE IDEAL PHYSICIAN AND HIS LIBRARY.

IT is not an exaggeration to say that no man has so varied a mission to fulfil as the physician, and to fill it as it should be requires an extraordinary man—an ideal man—one not often found, but one whose character and works might well be studied and followed by all. Today the tendency of the profession is towards the goal of *science*, in the broadest acceptation of the term, and no word of criticism should be uttered in opposition to this most worthy effort to learn the cause, pre-

vention and cure of disease. But while pursuing the fascinating trail which constantly opens up new and unknown fields let us not forget the byways that lead to other fields of knowledge which are quite essential to rounding out the physician's role in life. Nothing can be of greater benefit to the physician than a good library of varied literature to which he can and should turn for entrees to the medical diet, of which he may tire unless varied, and thereby prevent a loss of interest. This not only rests his mind but enables him to administer in addition to the medical treatment the mental palliative that is so often necessary (and frequently overlooked) and which, in many instances, seems to accomplish more than the former. What an accomplishment it is to be able to discuss the higher literature with the man of letters, government questions with the statesman, poetry with the poet, commerce and crops with the merchant and farmer, baseball and golf with the enthusiasts of these games, and many other topics that can be intelligently discussed by giving a few moments every day to a little outside reading. Young man have other books beside those on medicine in your library, take a live interest in the general topics of the day and study carefully the temperament of your patient so that you may be capable of giving mental as well as physical treatment.

C. W. KOLLOCK, M. D.

ORIGINAL ARTICLES

ESSENTIAL HAEMATURIA.

*By J. H. Taylor, M. D., Columbia, S. C.

The symptom of haematuria holds for both the internist and the surgeon a fascinating array of possibilities and invades the field of both. Furthermore, in the genito-urinary system are presented problems that give ample field for the play of a discriminating judgment which makes for the best interest of the patient, and prove the veriest pitfalls to the surgeon lacking that poise attained only through a thorough grounding in general physical diagnosis.

Here one faces conditions inaccessible to the general practitioner without the later developments in diagnostic agencies, such as the X-ray, the cystoscope, the ureteral catheter, and various other instruments.

Given a subject presenting the single symptom of haematuria, one's first consideration is the localization of the site from which the bleeding arises, whether the urethra, the prostate, the bladder, the ureter, or the kidney itself.

Waving now aside the causes and the identification of bleeding from the lower urinary passages, rendered comparatively simple by the use of the cystoscope, we face renal hemorrhage with all of its perplexities.

To just such a case I wish to invite your attention, presenting the

following history: Mr. R. of Greenwood County, South Carolina, consulted us on January 28th, 1913—43 years of age. Married—a cotton buyer by profession. His father died of Bright's disease, while his mother remains alive and well. One brother committed suicide, while another brother and a sister survive.

He seems to have been a very abstemious man, neither smoking nor drinking; denies syphilis, but acknowledges gonorrhoea a number of years ago with no known sequelae.

There is neither a family nor personal history of rheumatism. He had uncomplicated typhoid fever in 1880, but never malaria. Negative pulmonary history. No neuroses of any kind, and seldom a headache. No cardiac symptoms. For the past two years his digestion has been good, previous to that there had been some digestive discomfort. He has a constipated movement daily, and has had hemorrhoids for the past three years.

During the past summer, while not actually sick, he did not feel vigorous and strong. His appetite was not good, but there was no cough or other features suggestive of tuberculosis.

Weighing, two years ago, 125 pounds, he lost flesh gradually, until in April, 1912, he weighed 115 pounds. One week ago, January 21st, his weight registered 122 pounds, while on February 2d it had fallen to 112 pounds.

Finally in the genito-urinary system center his symptoms and our interest.

*Read before the South Carolina Medical Association at Rock Hill, April 17th, 1913.

On November 18th, 1912, he suddenly noticed the passage of blood-tinged urine without other symptoms, but later there appeared at intervals a slight soreness in the supra-pubic region. Otherwise pain was in no way associated with the condition. There was no undue frequency of passage or any other urinary irritation.

This bloody urine was passed constantly with but two exceptions—two days in December and the two days previous to our examination on January 28. Exercise has not seemed to deepen the bloody tinge, and if there be any variation whatever in the quantity of blood passed, it is greater early in the mornings.

PHYSICAL EXAMINATION.

He is a fairly well-nourished man, by no means vigorous looking, but with no suggestion of cachexia or emaciation. His skin appears somewhat pale, with a deepening of the pigment around the eyes. A pallor of the mucous membrane clearly indicates a moderate diminution in his hemoglobin. His pupils and their reflexes are normal. The patella reflex is brisk, but not abnormally so. Throat, lungs, and heart are normal. A rectal examination reveals hemorrhoids to a considerable degree, but otherwise is negative. Neither the spleen nor the liver is palpable below the costal border, and the latter's area of dullness is normal. Even on deep inspiration neither kidney is palpable, nor is there a suggestion of tenderness in either flank. Immediately over the bladder, just to the left of the mid-line, there is tenderness complained of on deep pressure. It is not acute, and is borne without change of facial expression or local muscle spasm.

While in the hospital from January 29th to February 5th, his pulse ranged between 59 and 88, except for a few hours subsequent to the anaesthesia incident to the cystoscopic examination when it went up to 104. His respiration ranged from 16 to 20. His temperature on the other hand fluctuated as follows, showing a moderate subnormal excursion in the mornings:

January 29th:

98 at 9:00 P. M.

January 30th:

97½ at 4:30 A. M.

99 at 3:30 P. M.

January 31st:

98 at 3:30 A. M.

98 2-5 at 6:00 P. M.

February 1st:

97 at 5:00 A. M.

98 3-5 at 6:00 P. M.

February 2d:

97 3-5 at 2:00 A. M.

Cystoscopic examination at 11 A. M.

February 3d:

98 2-5 at 2:00 A. M.

99 3-5 at 8:00 A. M.

99 1-5 at 6:00 P. M.

February 4th:

98 at 2:30 A. M.

98 2-5 at 8:00 P. M.

February 5th:

97 1-5 at 6 A. M.

The blood examination reveals 70 per cent Hgb.—12,400 Leucocytes, and a differential count of:

5.3 Large Monos.

25.5 Small Monos.

67.7 Neutrophiles.

1.2 Eosinophiles.

.3 Mast.

No malaria.

His systolic blood pressure registered 130 M. M.

The urine was consistently bloody, and a complete 24-hour specimen

was obtained February 1st, consisting of 78 ounces. It appeared markedly blood-tinged, and was acid in reaction. Under the microscope, it contained a mass of red blood corpuscles, but a careful search showed an apparent complete absence of casts, pus, or other cellular elements than the red cells. On February 3d, a cystoscopic examination by Dr. Knowlton showed a perfectly normal bladder mucosa. There was no puffiness or vessel changes about the ureteral orifices, and through the catheter passed to the pelvis of the right kidney was caught a specimen of blood-tinged urine that under the microscope contained many red blood cells, but neither pus nor casts. Repeated attempts to catheterize the left ureter was prevented by what was probably a transverse fold in the mucosa. However, during the constant watching of the orifice, while the efforts at passing the catheter were being made, no blood-tinging of the water was observed.

We have here now for consideration a case of symptomless haematuria, apparently and probably unilateral.

In view of his loss of weight from 125 pounds two years ago to 115 in April, 1912, then the rapid loss again of 10 pounds in two weeks in 1913, his malaise of the past summer together with the subnormal temperature at this time, suggest at once Renal Tuberculosis.

The bleeding, however, is altogether too constant and profuse for a tubercular kidney, in which the hemorrhage is insignificant. Moreover, pus is constantly present in the urine from a tubercular kidney, and to eliminate the condition entirely from further consideration, a thorough test with old Tuberculin gave

no reaction, local or systemic, during his sojourn in the hospital.

Our next thought is a neoplasm of the kidney, particularly hypernephroma, that peculiar misplaced suprarenal cell-mass that by taking on active growth becomes malignant in nature.

Here we face a much more perplexing condition, and often it is utterly impossible, until after the kidney has been laid open, to say definitely that a new growth is not present. Nevertheless, we do know that, except in the case of papilloma of the kidney, an extremely rare condition, the bleeding is markedly less in amount than in our case, and moreover, the bleeding is increased by exercise, which seemed to exert no effect in the case under consideration. The cachexia, too, if present at all, is much more extensive in neoplasms in proportion to the loss of blood.

Renal calculus, as you know, can be present, indeed, the kidney tissue may be riddled with calculi without even a pain, for only the capsule of the kidney contains sensory nerves, and it is pressure on this capsule, exerted from within, that gives rise to the pain. On the other hand, absence of renal colic with stone is the rare exception. While haematuria may be the only symptom of the foreign body, yet it is transitory and insignificant in amount, and we may add here that the blood that appears in the urine from ureteral calculi does not come from abrasions of the ureter as usually assumed, but from the kidney itself as a result of the congestion produced by the damming back of the urine on the kidney pelvis. This pressure, too, gives rise to much of the pain experienced.

The X-ray here should give us the desired information, although we

must bear in mind that a pure uric acid stone throws no shadow.

We obtained from Dr. Gibbes excellent skiagraphs in this case which showed no shadow suggesting stone, and the absence of renal colic, together with the large and continuous hemorrhage, would almost certainly eliminate stone.

Fenwick, in his handbook on Clinical Cystoscopy, first described a varicose condition of the veins on or near the end of any one of the papillae in the kidney, to which he gave the name of "renal varix." There have been reported nine of the cases in all. Pilcher's report of two cases in Annals of Surgery for May, 1909, being especially illuminating. This condition is likewise painless, and the bleeding profuse and always unilateral. But of the nine cases eight were left-sided, and only one right-sided. The left-sided nature of the condition is accounted for, as is left-sided varicocele and the frequent association of hemorrhoids, by the fact that the left renal vein to which these are tributary has a large amount of blood to carry, and has an embarrassed outlet.

In our case, hemorrhoids are indeed present, but our bleeding would seem to be right-sided, and as pointed out by Rendall in J. A. M. A. for January 4, 1913, the chances of right-sided renal varix occurring is just one in a hundred.

Finally, by elimination we are forced to the conclusion that we are most probably dealing with a case of so-called Essential Haematuria, as brought out in our study of the above case, over and beyond the usual causes of renal haematuria demonstrable before or during an operation. There is a class of obscure conditions on which operation sheds

no light, and, indeed, microscopical examination of sections of the kidney reveals often no pathological condition to account for the hemorrhage. As a rule, minute examination identifies sufficient cause, this most frequently being isolated patches of chronic Nephritis.

To this evasive group of cases has been applied the term of "Essential Haematuria," or by a further narrowing down of the term to indicate a hemorrhage from one side only, "Unilateral Essential Haematuria."

Of the numerous theories that have been advanced as the causative factor in these cases, but three will bear close scrutiny:

1. Chronic Nephritis.
2. Hemophilia.
3. Angioneurosis.

There is neither a family or personal history of hemophilia in our case, and moreover, essential haematuria usually comes after mid-life. Furthermore, hemophilia would have appeared earlier, and would not have confined its activities to one kidney. Angioneurosis is a very vague and uncertain condition, and is accepted by but few as a cause of essential haematuria.

Of the three theories, that of chronic nephritis has much to justify it, and is accepted by most authorities. We know that a chronic nephritis can be only unilateral, and, furthermore, that small isolated areas of inflammation may be present in one kidney only. Kretschimer, in 1907, found nephritis on microscopic sections in 53 out of 62 cases, and Bleek, in 1909, stated that 50 out of his 80 cases showed undoubted evidence of chronic nephritis. As showing how slight a condition of inflammation may produce this bleeding. Ranshoff in Keene's

Surgery mentions a case of essential haematuria presented by Nickolish to the Paris Academy. In Vienna this kidney had been declared normal; in Paris Albarron and Matz found marked evidence of glomerulonephritis.

Ransohoff reports in the same place a case of his own where the glomeruli were generally normal, but in certain areas distinct atrophy with granular changes had occurred.

Sometimes these cases of essential haematuria are accompanied by distinct attacks of colic, which indeed occurs in frank nephritic cases, and is to be attributed to congestion with resulting pressure on the sensitive capsule.

And so, the case left the Columbia Hospital, on February 5th, with a diagnosis of essential renal haematuria from unknown cause. While the possibility of nephritis was borne in mind, still it would seem to be but very slight, in view of a phenol-sulpho-phthalein efficiency test giving a normal recovery of 40 per cent while in the hospital.

Since this date, the following developments have taken place.

There has been a gain in weight of 10 pounds. For one month after leaving the hospital the urine to the naked eye was free of blood. It then appeared blood-tinged again for two days, and each week for about two days it has been perceptibly bloody up to the present, and clear in the intervals. On April 13th and 14th it was bloody, but on the 15th it appeared clear again.

On March 7th a specimen sent for examination showed under the scope a few red blood cells, and what is of surpassing interest, our first tangible evidence of nephritis in the shape of casts. A considerable de-

gree of homolysis also had taken place, probably after the urine was voided, as indicated by much free hemoglobin.

On March 18th there again appeared many red cells, but no casts.

A 24-hour specimen for the 15th of April gives the following: Slightly cloudy; Acid; Spg. 10.23; Trace albumen; No sugar; No bile. A marked reaction to indican. While under the microscope appear no pus. A few very pale red blood cells, and hyaline casts again.

Another development quite in keeping with unilateral essential haematuria of the right side, and in fact a corroborative factor in our case has been the appearance of a pain off and on in the right loin since leaving the hospital.

DISCUSSION.

Dr. Adams Hayne:

I must thank Dr. Taylor for this paper, because it is a subject which has puzzled me a great deal in regard to a case that I have which, with the permission of the Society, I would like to detail.

Patient: Married, age 38; first, had hemorrhage nine years ago. These hemorrhages were profuse. Had malarial fever 18 years ago. No other evidence of malaria since that time. Seven children. The hemorrhages have come on during the latter months of pregnancy. They were profuse, sometimes amounting to a pint almost of pure blood, which would clot in the vessel. The urine, on examination, has never shown any casts or evidence of pus. The patient's health, apparently, is excellent. She has good strength and is very active even during the periods when blood is coming from the kidneys, and exercise causes no increase of hemorrhage. I have kept the patient in bed for two weeks with no diminution of the hemorrhage. On the other hand, when I let her get out of bed and take exercise the hemorrhage would sometimes disappear. However, while taking exercise, the hemorrhage would reappear.

During the latter months of pregnancy, with four of these children, these hemorrhages have come on. She has not had any children for two years, but this spring was attacked with this condition, and for three weeks she passed large amounts of blood, amounting, at times, from a pint to almost a quart of pure blood. The urine is now found clear and under microscopic examination it shows neither casts nor other indications of nephritis. There is no family history of haemophilia and the case is the only one that I have ever seen, and I have consulted with a great many physicians in regard to it, but have been unable to get any information as to what was her trouble. Consequently I think that I might be justified in saying that this is, also, a case of essential haematuria.

Dr. Taylor closes:

Just a word as to treatment in closing. The mere catheterization of the ureter at times will stop the bleeding, and in the above case there was no appearance of blood for a month after this procedure, whereas before it had been constantly present.

If the bleeding is so extensive that rest in bed and calcium salts will not give relief, then operation is indicated. This consists in laying open the kidney along Brodel's lines, and appears to correct the condition almost invariably.

FRACTURE—DISLOCATION OF THE SEVENTH CERVICAL VERTEBRA.

*By Sam Orr Black, A. B., Rising Third-Year Student Jefferson Medical College. In the service of Dr. H. R. Black, Spartanburg, S. C.

Name: J. F. Age, 52. Male.

Previous history: Negative.

J. F., while driving a wagon Friday morning, July 26th, 1913, fell backward to the ground, a distance of some three or four feet, landing on his lower cervical region. He at-

tempted to raise himself, but failed. Calling for help, in a few moments, he was removed to a more comfortable spot by bystanders, from which he was soon carried home.

We reached the injured man some three or four hours later, and found him thoroughly conscious, though in some pain over the seat of injury and neighboring tissues, and in a slight state of shock and completely paralyzed from the cervico-thoracic junction downward. He was lying on his back, with his arms abducted at about right angles, his forearms flexed on his arms, and his fingers partially clinched.

This position, I have since learned, is considered by Starr, to be pathognomonic of an injury to the two lower cervical segments, when the cord is involved.

The tissues overlying the seventh cervical vertebra—(this one being easily determined as it is the second bony prominence beneath the occiput), were reddened, slightly swollen, and painful to the touch. There was also a slight bluish discoloration over the right thorax posteriorly.

A small area of Ecchymosis was noted over the opposite side at about the same level. These with the presence of priapism, and breathing of a distinct diaphragmatic type, the costal movements being almost imperceptible, though not quite, due possibly to the action of the Trapezius and Sternocleidomastoid muscles, assisting in forced respiration, constituted the sum total of the external evidence to be noted.

A lapse of several hours revealed the inability of the patient to urinate and the loss of all control over his bowel movements; the former necessitating catheterization, the latter taking place voluntarily, even without his knowledge.

*Read before the Fourth District Medical Association, Anderson, S. C., November 25, 1913.

Priapism continued in this instance for 72 hours, thereby furnishing further proof that this condition not only follows a molecular disturbance in the erection center in the sacral portion of the cord, but may result from injuries to other portions as well.

Motion of the arms, forearms and hands was interfered with, though by no means was it entirely absent. Notwithstanding there was a partial anaesthesia of these parts, which was complete on the inner side of the right arm, forearm and hand and less pronounced over the ulnar side of the left forearm and hand than it was over the same location in the right arm. The outer half of these same structures responded readily to any stimulus applied.

The question of the reflexes, superficial and deep, was minutely gone into because of their paramount importance. All efforts, both at that time and since, failed to elicit any response in the structures supplied by nerves whose roots leave the intervertebral foramina, below the seat of injury, especially when the patient's view was obstructed. A few times, however, when the shield was intentionally removed, he thought he could feel a vague indescribable touch of some kind over the plantar surfaces, finding it quite impossible always to differentiate between the point of a pin or the end of a finger, as it may have been.

These findings all pointed to a severe injury of the eighth cervical segment of the cord, complicated by lesser damage to the seventh cervical segment, which resulted either from a fracture or a dislocation, or a combination of the two to the seventh cervical vertebra: This diagnosis was later confirmed by the X-ray,

the picture itself showing the seventh cervical vertebra displaced one-eighth of an inch to the left and a line of fracture running from above downward and to the right when seen from in front.

For ten days polyuria was especially prominent, the twenty-four-hour output, varying from a minimum of 2400 C.C. to a maximum of 3200 C.C. or with the exception of 10 or 15 C.C. counterbalancing the amount of fluid taken into the body for the several days that the intake was recorded.

Chemical examination showed no changes in the urine and the absence of Glucosuria, if the literature be correct, weighed slightly toward an injury of the cord and not a transverse section intoto. However, since the paraplegia happened instantaneously with the injury, this fact in itself pointed directly to a fracture with a concomitant section of the cord, ruling out, at least, three other possible causes, namely: (a) blood clot; (b) contusion with its resulting congestion and edematous conditions; (c) concussion, the presence of which so many eminent authorities with improved methods of investigation and examination now doubt in any of the reported cases, because all of these require some time, often hours, for their full development.

There remains one other causative agent we have not considered, namely: intra-medullary hemorrhage. However, if it be recalled that this condition is associated with intense pain in the back, and that no appreciable pain was present, it too must be forgotten, thereby leaving only the fracture or dislocation—the clinical picture having been so suddenly and yet so intensively flashed upon the screen of life.

The patient was removed to the

Spartanburg hospital, where his head and neck were immobilized by a plaster paris cast, massage and electricity were instituted, stimulants as the occasion demanded were given and though we had neither an air nor a water bed, decubitus was prevented.

Operation, the attending surgeon thought, was contra-indicated, but this question was quickly settled by the patient himself who objected most strenuously.

In view of the unfavorable prognosis given, the family, after four or five days, insisted upon moving the patient to the home of his son. This necessitated catheterization by unskilled hands and though all the danger of cystitis and bed-sores were pointed out, these had no deterring influence, and although thorough instructions in both asepsis and antisepsis were given, nevertheless a violent cystitis ensued and a rather extensive bed-sore over the sacral region soon made itself manifest.

The mortality following surgical intervention in spinal injuries being greater as one approaches the occiput is tremendously high in the cervical region, this, in consideration with the severity of the injury itself, disinclined us from "pleadings" for a laminectomy. We hoped that time itself might restore, partially anyway, motion and sensation, at the first appearance of which we intended to ask for the chance to assist the progress that was taking place. But an anxious wait showing no amelioration or alleviation of the condition. After a few days, during which time he held his own, he began to grow steadily worse, and it was evident that life was becoming more and more extinct. The catabolic changes so far overbalancing

the anabolic ones that the emaciation became extreme and the general appearance soon changed to as pathetic a picture as one can imagine.

The progressive manner in which these life changes presented themselves made us still doubtfully glad that the aseptic scalpel and the rongeur forceps were not used, for mortal man, whether he be surgeon or murderer, has no right to abbreviate for one brief moment the life of his fellow man, and the recorded mortality of cervical spinal surgery is too colossal to warrant operation in an injury of this sort.

Though a post-mortem examination was not permitted, thirty-four days after the injury when the patient died, still we were reasonably sure that the cord must have been almost, if not, completely severed, from the report of the cases posted by Bastian and Bowlby, both of whom say in substance that when there is complete loss of the deep reflexes there is probably a total transverse lesion, but when the continuity of the cord has not been entirely interrupted, the reflexes are not only preserved, but are generally exaggerated. These opinions are virtually those of Samuel Lloyd and other authorities so far as I have read.

The exact damage to the cord not being known, the X-ray pictures having been described, the signs and symptoms having been disclosed, Mr. Surgeon, you can decide for yourself if an operation should have been performed had it been possible to obtain the patient's consent.

Dr. John B. Murphy, of Chicago, in a very recent article pertaining to the treatment of injuries to the cord, says among other things: "Never catheterize when trauma is in the

cord. Patients do not die from a divided cord, but they do die from the trophic changes, bed-sores and infections of the urinary tract (bladder, etc.). Once catheterization is started the patient is doomed, because infection always takes place regardless of the sterility of the catheter."

"Let the bladder fill with urine after two or three days—if the patient is a woman, massage the sphincter vesicae through the vagina; if a man, massage the sphincter through the rectum. Finally there is relaxation of the sphincter and the urine begins to flow."

ASCARIS LUMBRICOIDES AND REPORT OF CASES.

*By Baxter Haynes, M. D., Spartanburg,
S. C.

In this brief paper I shall not go into the detailed history of intestinal parasites, for it is known to every doctor that man has been carrying parasites in the intestinal tract for ages; nor will I go into a detailed description, nor the cycle of propagation, for the majority of us care nothing about all these details. We know that in a great many cases we find intestinal parasites in both young and middle age, causing a very great variety of symptoms, and since the symptoms are so varied and complex, I shall deal with the symptomology only.

Osler, in his system of modern medicine, gives such a long list of probable symptoms that we might expect to find intestinal parasites in man who has symptoms from that of

ordinary nausea, vomiting, to that of ordinary epilepsy. Osler mentions the following: irritation of skin, urticaria, pallid appearance, alternate pallor and redness of face, jaundice, dark rings around eyes, unequal or dilated pupils, flashes before eyes, mydriasis, amblyopia, strabismus, disturbances in hearing, itching and picking at the nose, grinding of teeth, restlessness at night, bad taste, offensive breath, belching, offensive gases, hiccoughs, anorexia and irregular appetite, dirt eating, nausea, vomiting, choking sensation in throat, vague abdominal pains, irregular bowels and constipation, intestinal obstruction, muscular pains, itching about anus and tickling sensation in throat, emaciation, headache and vertigo, fainting spells, chorea and convulsions, epilepsy, catalepsy, ecstacy, hysterical conditions, eclampsia, tetanoid states, pseudomeningitis, palpitation and irregular action of the heart. This is a long, varied list of symptoms of *ascaris lumbricooides* to which a few more could be added; but some of which have never come under my observation. Since I made it a rule to examine feces from every patient I have been astonished to find *ascaris lumbricooides* to be responsible for certain symptoms and complaints which to me were puzzling.

CASE 1:

A girl eight years old, undeveloped, emaciated, anaemic, skin of muddy complexion, poor appetite, constipated, enuresis, whose chief complaint was a convulsion at night just as the child was sound asleep. This, the parent said, had been nearly every night for eight months. I got a specimen of feces and found the egg of *ascaris lumbricooides*, gave treatment for same, the worms were

*Read before the Fourth District Medical Association, Anderson, S. C., November 25, 1913.

passed, the convulsions were stopped immediately, and in a few weeks the child was normal. This case I treated six years ago, and up to a few weeks ago has had no signs of convulsions.

CASE 2:

This was not my case, but was under my observation. Boy, 14 years old, physical appearance good, appetite good, digestion fairly good, in fact, about all the complaint he had was that of having occasional attacks of acute abdominal pain, followed by temperature 101 to 103½ degrees, which lasted only a day or so. His physician made a diagnosis of appendicitis, advised an operation, which was consented to. The abdomen was opened, the appendix was normal, but was taken out. No other pathology was found, abdomen closed. Twelve days afterwards he had exactly the same kind of attack of pain as before operation, followed by temperature. No explanation was made of this recurrence. Fourteen days later another attack of pain came on, followed by temperature. Blood was examined for malaria, but was negative. Feces showed ascaris egg, and after heroic treatment the worm was expelled, and the boy had no more trouble up to a year ago when I last saw him. I first saw him in 1909.

CASE 3:

Mr. C. H., age 30, occupation cotton mill overseer, married for nine years, had one child, who was burned to death. When a child had one convulsion, but thought it was due to eating peanuts. Had measles, mumps, chicken pox, whooping-cough and scarlet fever when in childhood. Present illness began in summer of 1909, and up to that time

was in good health. His chief complaint was a convulsion at night just as he gets sound asleep. Convulsion has never occurred at any other time, sometimes coming once a week and there is never a period longer than five weeks interval. Patient has not the slightest warning of attacks. Has never bitten his tongue, has slight headache and feels badly next day, but works all the time. His wife notices he gets sallow and rather bilious looking for about two days previous to attacks, also loses appetite. Just previous to attacks his eyes have a glary look and then they are drawn backward and to right side. Blood showed an eosinophilia, otherwise normal. Stomach analysis: Free H. C. L. 30, total 50, urine, specific gravity 10.30, albumen, sugar and indican neg. A few pus cells microscopically. Blood pressure: Systolic 130, diastolic 95. In his feces I could easily demonstrate ascaris lumbricoides egg. I put him on the proper treatment, the worm was expelled and two months and a half have elapsed and no sign of a convulsion. He has gained 2½ pounds each week since.

These two cases in whom the convulsions occurred at night just as they got sound asleep are very interesting, but to explain these conditions I am not able to do, and the interesting point is that we do not usually find ascaris in middle aged people.

THE TREATMENT OF CANCER.

*By G. H. Bunch, M. D., Columbia, S. C.

The treatment of cancer is the problem of the age. This scourge

*Read before the South Carolina Medical Association, Rock Hill, S. C., April 17, 1913.

of mankind is universal in its distribution. No climate, no race, is free from its ravages. There are especially equipped and liberally endowed institutions in every civilized country for the study of cancer. Yet we are absolutely without knowledge of how the disease spreads. Every means known to science has been employed to control it, yet mortality statistics show an unmistakable yearly increase in cancer. Were its etiology understood we might hope for some aid in its prevention and treatment. Subjected to more scientific investigation and research than any other disease, it remains an unsolved problem. We *may theorize* but we *know* nothing of what cancer really is or how it may be prevented. There is no known drug or therapeutic agent that has any influence upon it whatsoever. Ultimately such an agent must be found, but now the treatment is essentially surgical.

Cancer begins as a localized epithelial growth, so insidious in onset that it produces no symptoms and this is the ideal stage for surgical cure. The radical excision of such a localized tumor is easy. Because of its innocent, insignificant appearance, without pain, tenderness or inflammation, because its growth is so slow that extension cannot be observed from day to day, the unsuspecting victim usually neglects consulting medical advice until the true nature of the malady begins to manifest itself even to the patient's untrained eye. Then the best time for surgical intervention has past. Cancer is malignant and we know not how soon secondary growths in every way as dangerous and as deadly as the mother tumor may by metastases be started in the lymph

glands, in the parenchymatous organs, in the bone, in any tissue that has a blood or a lymph supply. Gentlemen, this is not an imaginary picture but it is the inevitable course of the disease in every case in which the primary growth is not situated in some vital organ and kills the patient before metastases have become so universal. This is the condition at autopsy upon practically every one dying of malignant disease. And, unfortunately, this is the picture seen only too often by the surgeon on the operating table. The profession, and through the profession, the layman must be taught that delay in cancer means death. The word inoperable is the saddest in surgery. Every time we use it there is an undoubted reproach to us as a profession and a human life is sacrificed unnecessarily. That which was at one time a localized growth, easily removed and cured, soon becomes a condition so deep seated and so general that its complete extirpation is a physical impossibility. There is a time undoubtedly when every cancer is curable, and there is a time when every cancer is incurable. This fact implies a corresponding obligation on us as a profession to advise that every suspicious growth be removed at once. We are the guardians of the public health and their only safe guard against disease. Through us the public must learn the insidiousness of early malignancy, must learn that the choice is between an early and a complete operation or death. Our whole problem is one of early diagnosis. Operable cancer is unfortunately a painless malady, otherwise the patient would not be slow to seek relief. Pain is a late symptom of malignancy, and comes from involvement

of the nerve trunks by the growth. Every growth or lump about the body should be carried to the doctor, and if he thinks there is any possibility of cancer, the mass should be removed at once.

That the patient does not consult the doctor earlier is unfortunate, but the medical profession cannot put all the blame on the laity for late diagnosis. A reasonably early consultation of the doctor, I believe is the rule, but a reasonably early diagnosis and operation is certainly the exception. Many of us, and this includes the best of us, are extremely loath to make a diagnosis of malignancy. We should not let our natural optimism and the desire to encourage the patient, overcome that good judgment, on which the safety and life of the patient depends. Imagine a well-to-do farmer, 50 years old, who has lost forty pounds in a year. He suffers from a constant aching pain in the epigastrium and right hypochondrium. He enjoyed good health a year and a half ago. He has lost all appetite and vomits shortly after forcing liquid food. The vomitus is streaked with blood. There is a palpable mass in the right hypochondrium, dull on percussion and tender on pressure. This man was kept alive a month on nutrient enema. His is the typical picture of a man with cancer of the stomach. Yet after having consulted several of the best internists in America, without his malady having been recognized, his death certificate was signed melancholia by one of the best known men in South Carolina.

A woman of forty, who has always been regular in menstruation begins to flow at irregular intervals. The bleeding has become more often until it is practically continuous and

at times of considerable quantity. The woman is anemic and has lost thirty pounds in a year. Her physician reassures the patient, telling her that it is the change of life and that she will soon be all right. What a blessed assurance if it were only true. On examination the cervix is found to be a mass of cancer. The uterus is fixed, and both broad ligaments are of board-like hardness from the infiltration. In two months there was indeed a change of life, the patient only controlling the intolerable pain by constantly increasing doses of morphine. The menopause comes with a gradual stoppage of the monthly flow. Increase in flow at this age is usually due to cancer.

A farmer of fifty has for a year noticed a rapidly growing wart-like tumor on the scalp behind the ear. He has had this growth removed twice by a so-called skin specialist, this being done by tying a string tightly around the base of growth. There has been a recurrence of the growth each time. Now the glands of the neck are easily palpable. This man lived three months after a block dissection of the neck.

There is an ambulance call to meet Mrs. X on a certain train. Her family physician has been in attendance upon the case and has watched the patient carefully for a year. He has tried treating her for change of life and finds she does not improve. He believes she must have cancer of the womb. She is much emaciated and is too weak to sit up. On opening the abdomen the uterine ligaments are so ulcerated and are so friable that the uterus is almost freed from them and lies practically unattached in the peritoneal cavity. The woman was sent home to die.

These are not hypothetical cases and such examples of inexcusably late diagnosis might be multiplied indefinitely.

With improved methods of surgical technique the treatment of cancer has become more and more radical. The absolute hopelessness of the condition untreated justifies any operation that offers a reasonable possibility of cure. A few years ago typical excision of the breast consisted in making an elliptical incision around the nipple, dissecting the skin from around the gland and removing the gland from the pectoral fascia. Through the incision the finger was pushed up into the axilla and all palpable glands were removed. Such an operation could be completed in a few minutes. The primary mortality was nil, but the ultimate results were disappointing. A recurrence occurred in every case. Now we know metastatic involvement of the axillary lymph glands is so common in cancer of the breast that the axillary space should be thoroughly cleaned of its gland-bearing tissue whether any palpable glands are found or not. To do this it is necessary that the axillary vessels be exposed and left as clean as pipe stems. Heretofore in this operation we have been too saving of skin. The incision must clear the cancer area by a liberal margin. The knife should never come in contact with cancer. The pectoral fascia and both pectoral muscles are removed. In other words the chest on the side operated upon is bared to the ribs. After a complete extirpation of the breast, when the wound cannot be closed it should be covered with skin grafts before the dressings are applied. The primary mortality of this operation is small

and in suitable cases recurrence is comparatively rare. Authorities are agreed that 80 per cent of tumors of the breast, after forty years of age, are malignant from the first, and that of the remaining 20 per cent half become malignant. The fact that every tumor of the breast should be removed at once is a surgical principle now well recognized.

Carcinoma of the uterus usually begins in the cervix, and irregular hemorrhage at or about the menopause always demands careful vaginal examination. The diagnosis of change of life in uterine hemorrhage at this period is not only a cloak for ignorance but is actually criminal. In doubtful cases it has heretofore been customary to cut a piece of the cervix off for microscopical diagnosis. Experience has shown this to be a dangerous practice because of the danger of setting cancer cells free in the blood vessels causing metastases. If there is any doubt about the diagnosis, treat the case as one of malignancy. The classical operation is a Wertheim hysterectomy. An ordinary hysterectomy is one of the easiest and simplest operations in major surgery. But a Wertheim operation properly done is most tedious and difficult. The uterus, tubes, ovaries, parametrium, cervix and broad ligaments are removed. The iliac vessels and the ureters are bared on both sides. The cancerous tissues should be carefully removed from the peritoneal cavity, care being taken that it be not allowed to drag over healthy tissue and thus scatter cancer cells over the denuded surface. No doubt such a method of infection explains why, in many cases, there is a rapid recurrence, with the disease progressing much faster than it would

have done without operation. The primary mortality of the Wertheim operation is considerable, but the ultimate results justify it. Personally I believe that every case of cancer of the cervix should have a deep cauterization of the cervix done about two weeks before hysterectomy. This rids the patient of the ulcerating, stinking cervix, frees her from the absorption, allows her appetite to return, and causes a general improvement in her condition. In inoperable cases where there is fixation of the uterus and infiltration of the broad ligaments such a cauterization makes the patient more comfortable and actually lengthens her days. Before attempting a hysterectomy for cancer of the uterus the wise operator, after the peritoneum is opened, always carefully palpates the under surface of the liver, the spleen and the mesenteric lymph glands for possible secondary metastatic nodules. If these are present there is no possibility of cure and the removal of the primary growth is useless.

Until very recently cancer of the stomach or the intestines has been considered a hopeless condition to be treated symptomatically by anodynes to control the pain. This fatalistic opinion is no longer held by surgeons of today. Gastric cancer is being cured every day in the larger clinics by a liberal resection of the stomach. Cancer begins most frequently in the pylorus and spreads most rapidly through the lymphatics of the lesser curvature. In a typical case for resection the entire lesser curvature and half the greater curvature is removed.

This does not seriously impair the motility of the stomach, and when convalescence is over, digestion seems to be normal. It is an

operation of considerable magnitude, but a skilled operator should finish it in about an hour. The operability of a case depends upon the extent of involvement and upon the absence of secondary growths elsewhere. Medical books divide cancer of the stomach into two classes: those without a palpable mass and those with a palpable tumor mass. The palpable cases are usually, not necessarily, the further advanced and are often inoperable. The diagnosis of such a case with its accompanying symptoms is easy. But there are many cases without tumor that give such a typical history that a diagnosis of cancer can be made. Whenever a person, over forty, begins to have indigestion, loss of appetite, progressive loss of weight and strength, a test meal should be given and the stomach contents tested for H. Cl. and for lactic acid. If there is an absence of H. Cl. the diagnosis is assured. But this may be present, even though it is cancer. As the disease progresses, there is loss of motility of the stomach; there may be symptoms of a beginning obstruction, such as a regurgitation of food, there is occult blood in the feces and in the vomitus; there is pain in the epigastrium made worse by food. There is no single sign pathognomonic of cancer. The diagnosis must be made by the symptom complex. Understanding so well the absolute necessity of an early diagnosis, where there is a reasonable doubt of cancer in a patient over 40, do not wait for the development of symptoms that will make the diagnosis certain. Open the abdomen and make a diagnosis. An exploratory incision is safe and can be done under local anaesthesia. If the suspicion of cancer and the danger of delay are explained to the patient, his co-opera-

tion and consent is easily obtained. Obstruction of the bowel developing in people over forty, without other obvious cause is practically always due to malignancy. In inoperable carcinoma of the oesophagus or the cardiac end of the stomach there is usually stricture and food can no longer reach the stomach. The patient soon starves if a gastrostomy is not done. This is but a permanent fistula into the stomach through which the patient can be fed. It can be done under cocaine and prolongs life sometimes for months.

We could prolong the discussion indefinitely of the treatment of cancer in the various parts of the body in which it occurs. The operation for cancer, wherever it happens to be must be done along exact anatomical lines, so as to if possible, include the lymphatics draining the area involved. For example, the primary growth of cancer of the lip is easily removed, but a block dissection of the neck with a litigation of the jugulars and the removal of the gland-bearing fascia is extremely difficult. An operation for the extirpation of cancer is the work of an expert, skilled in anatomy and experienced in surgery. The novice should confine his efforts to easier tasks. With an early diagnosis, in the hands of a good surgeon, who realizes the seriousness of his undertaking but gives the patient the benefit of an optimistic radicalism, the treatment of cancer is very encouraging. With a late diagnosis and a correspondingly late operation, oftentimes inadequately done, the outlook in these cases is indeed hopeless.

DISCUSSION.

Dr. Guerry:

Mr. President: We could not possibly let this paper go by without a word. I think

Dr. Bunch is to be congratulated upon bringing forward the subject. It makes me sad to see all these empty chairs around here, because this is one of the most vital problems of America today, and there is only one way to reach it: to get into the hearts and minds and consciousness of the medical men, whether surgeons or not, the imperative necessity of understanding that cancer begins as a very small, frequently a painless, tumor, and that the only time in which these cases can be cured is in these early stages. When you can make a diagnosis of cancer of the stomach when a man walks into your office, by looking at him you can never hope to do anything.

There is not a paper that has been read at this Association that is as important and far-reaching in the good that it may do. I think it has been helpful to all of us and will certainly stimulate us to better things along this line.

Dr. Lee Sanders:

If I understand Dr. Bunch correctly, I am in thorough accord with what he said, and that is, taking sections from a suspected cancerous growth or cutting into a cancerous growth and allowing an examination. That has been a custom for a number of years among the older men, but it has been my teaching and my thought, in recent years, and if I mistake not Dr Guerry brought this out two years ago: that no section should be taken and sent to the laboratory and a later operation done. I think this is one of the vital things, and I have had it come before me more than one time: that they want the section made, then, if it is found to be cancerous, an operation at some later time. I think the operation should be done now, and then make a diagnosis of carcinoma later.

I wish to congratulate Dr. Bunch upon this paper. It is a wide-awake subject and cannot be too strongly emphasized.

Dr. Maddox:

It seems that we, in the smaller towns, cannot convince our city brothers that it is impossible to have many patients consent to an operation, and I don't see how, when the patient positively objects to an operation and says that he will not have it done, that we can operate.

Regarding the operation for carcinoma of the uterus: in the Mayo hospital they

take a section from the cervix and examine it just prior to the patient's going upon the table, and that is frozen immediately and examined right there, and operation done in five or ten minutes.

Dr. Bunch closes:

I have nothing further to say except to thank the gentlemen for their kind words.

THE SIMS MEMORIAL.

By Geo. T. Tyler, M. D., Greenville, S. C.

A striking evidence of the fact that physicians do not continue their studies after graduation is the demand for the young physician, because he is supposed to have forgotten less than his elder confrere. And this idea is growing in spite of our efforts to prevent it. The same is not said of the banker, the engineer, the architect, but the physician having to prevent disease, to restore health, to save life, the greatest of all responsibilities, is charged with retrogression. That the laity are not wrong in their verdict is attested by the view physicians take of one another, for they see these defects in their fellows and when they want medical attention for themselves or their families, they like the laymen, call in the younger men.

The explanation lies in the primal law of self-preservation and in securing the best means to this end. We are all human, whether physician or laymen, and in sickness we want the attention of the most skillful, the best prepared physician who can be had.

The foregoing is only a negative way of stating that physicians should study more; that they should keep informed of the progress of medical science, the more accurate means of diagnosis, the more rational methods of treatment, and not be satisfied

with less than the best. They want it for themselves. Ought their patients not to receive it also? Whether they are willing to admit this condition or not, the laity recognizes it, and are demanding the best that medicine has. The demand, then, is for the physicians to provide the most approved therapy. How is it to be met? By supplying themselves with libraries and using them; by discussing cases; by attending medical meetings; by visiting clinics. It may not be possible to use all these means, but they can do the first, oftentimes the others. But it may be objected that one physician cannot provide himself with all the necessary literature. True; still many can unite their efforts for a common library; a county or a State library; reduce the cost of their own journals, contribute this to a common fund, and have the use of all that the library provides; which will be kept on file, and thus be made the nucleus of a valuable collection of medical literature.

A means of establishing a State medical library it seems to me is within easy reach. The State Medical Association has induced the legislature to vote \$5,000 for a monument to Dr. J. Marion Sims, on condition that the society raise an equal amount. That portion to be contributed by the physicians has not been realized; one reason being that many of them dislike the idea of a monument. Would it not be a wise measure to change the form of this memorial, make it a medical library, naming it the Marion Sims Memorial Medical Library of South Carolina? Could we do more to honor the name of this great man than by making available the kind of knowledge that made his success possible? Can there exist a more fitting testimonial to his

memory than the spirit of research and study inspired by his life, and the means of encouraging this spirit? It seems to me that if he could be asked to select his choice of memorial, he would prefer a State association, the members of which were anxious to keep in the forefront of advancing medical knowledge, and were providing the means to do it. This would be a *living* memorial, the best method of keeping ourselves always young, of preventing our knowledge from slipping away from us; of disproving the reproach that with advancing years, we become less efficient.

The act of the legislature specifies a monument. This was done at the request of the State Medical Association, and if this body desires that the money be used for a library instead of a monument the legislature can be induced to change the act. I have suggested this idea to a number of physicians in the State and all have expressed approval. It will be well to discuss it freely before our county societies, in The Journal, and finally be brought up for action at the meeting of the State Association.

GUNSHOT WOUNDS OF THE ABDOMEN.

*By D. L. Maguire, M. D., Charleston, S. C.

It is not my intention tonight to discuss the question as to whether or not the abdomen should be opened for gunshot wounds. The time was when surgeons strictly maintained an expectant treatment and if death resulted considered it inevitable. It is true indeed, that in the South Af-

rican war, some patients with perforating wounds of the Abdomen did spontaneously recover, but the recovery was due to the fact that the bullet used was of small size and traveled at an extremely high velocity. Such a bullet produced a cleavage rather than an actual perforation with destruction of tissue. In such cases of recovery also it was found that the intestines and stomach were empty at the time of injury which was a valuable asset towards their getting well. Again Socin records a case of a man who was shot in the abdomen. It was thought that the stomach was wounded, but expectant treatment was followed and the patient recovered without operation. Five months later he died of a medical sickness. At the post-mortem two wounds of the stomach were seen which were soundly cicatrized. Such spontaneous healing as this, however can rarely be looked for and depends on the emptiness of the stomach, the small size of the wound and the plugging of the wound by omentum.

We cannot agree with Sir Frederick Treves, who gave it as his opinion, "That it is inadvisable to operate in cases in which the abdomen is traversed above the umbilicus owing to the multiple character of the injuries while in cases in which the abdomen is traversed below the umbilicus get well without operation."

We believe that in all cases of revolver, or pistol wound, indeed, it may be said in all forms of gunshot wound of the abdomen an exploratory laparotomy should be performed with the utmost expedition, even when we are in doubt as to whether or not the bullet has entered the abdominal cavity.

The records of different observers show that the mortality increas-

*Read before the Medical Society of South Carolina, September 15, 1913.

es directly in proportion to the delay before operating. According to Jeanbrau, in cases where operation was performed within six hours of the injury there were thirteen recoveries and sixteen deaths. Where the operation was performed from six to twelve hours after the injury there were two recoveries and eleven deaths. Where operation was performed after twelve hours, there were two recoveries and eleven deaths.

In regard to the dangers caused by gunshot wounds of the abdomen, these are mainly two—hemorrhage and peritonitis. We can readily understand, that the blood vessels of the omentum, mesentery, stomach and intestines as well as the great vessels of the abdomen may be injured by a bullet and on account of the blood flowing freely into the cavity of the peritoneum without resistance a rapidly fatal hemorrhage may occur from a small source. Wounds of solid organs as the liver and the spleen bleed very rapidly and profusely. It is rarely that a hemorrhage from the omentum causes death. However, one surgeon reports the case of a young man who was stabbed with an open knife in the lower epigastrium and who very soon developed the symptoms of hemorrhage. Upon opening the abdomen, but little free blood was found in the peritoneal cavity. The wound in the abdominal wall correspond to the situation of the gastro-colic omentum. The bleeding had taken place into the substance of the omentum and the blood had infiltrated and dissected its way widely beneath the peritoneum. The gastro-colic omentum, the transverse colon and the great omentum were greatly swollen infiltrated with blood and converted

into a spongy mass which bled freely whenever handled. It was impossible to determine the situation of the wounded vessel. The gastroepiploic arteries were secured but the bleeding continued in spite of ligation until the patient died the following day. Many wounds of the omentum bleed only moderately and it is the exception that a fatal hemorrhage from the omentum alone occurs. In a general way it may be said that dangerous and fatal hemorrhage occurs more often from solid organs (liver and spleen) and from the mesentery rather than from the omentum, stomach and intestines. The great vessels of the abdomen when wounded cause a rapidly fatal hemorrhage, which does not come under surgical treatment.

The other danger in gunshot wounds of the abdomen which stares us in the face is septic peritonitis. This is a very serious possibility and caused by a wound of one of the hollow viscera and the escape of infectious material into the peritoneal cavity. In some wounds, however, if the perforation is not very large, prolapse and eversion of the mucous membrane may temporarily and even permanently occlude the opening so that only a localized peritonitis or localized abscess results. Such an occurrence is exceptional. In the vast majority of cases, escape of intestinal contents occurs and acute septic peritonitis takes place.

Given a penetrating gunshot wound of the skin over the abdomen, can we positively diagnose injury of the abdominal contents before laparotomy? Are there any symptoms which indicate intra-peritoneal mischief? When the bullet has penetrated the spleen, liver or mesentery, the patient shows the symptoms of internal hemorrhage. There is increasing

pallor of the skin and mucous membranes, with a progressive increase in the pulse rate. The radial pulse becomes more and more feeble, thready, and easily compressible. In addition—when the bullet has perforated any large vessels, we have coldness of the extremities, a cold, clammy perspiration, restlessness, thirst, anxious expression, air-hunger and syncope. Locally there is severe abdominal pain and tenderness with rigidity. There may be dullness in the flanks and other signs of free fluid in the belly if the hemorrhage is very large. When the blood collects in the region of the spleen, below the right lobe of the liver, in the pelvis in the lesser sac or behind the peritoneum, there may be the formation of a more or less defined palpable mass dull or flat on percussion. Such a mass of course may slowly or rapidly increase in size for several days if patient survives and no operation is performed.

The signs and symptoms of injury to the alimentary canal are by no means so definite unless stomach or intestinal contents or gas escape from the wound. This, however, rarely occurs early enough to render a diagnosis of any service. In wounds of the stomach and duodenum accompanied by the escape of gas, such gas may be odorless or at any rate will not have a fecal odor. In wounds of the large intestines such gas as escapes will have a stinking fecal odor.

The early symptoms of injury to the intestinal tract are vomiting sometimes of blood, passage of blood by the rectum, severe abdominal pain and tenderness, and marked muscular rigidity. In the early hours (i. e. within six hours of the injury) we do not get a distended abdomen. On the contrary the abdomen is re-

tracted flat and may even be concave (the scaphoid abdomen) and of boardlike hardness. After six, eight or ten hours, the abdomen becomes distended and tympanitic owing to the onset of Acute General Septic Peritonitis. At this stage the prognosis is very grave and operation if done at this time saves but a very small minority.

The treatment of Gunshot Wounds of the abdomen, can be summed up in a very few words. We must operate and operate as quickly after the reception of the injury as possible. The abdomen should be opened up in the median line between the umbilicus and pubes and this incision can be carried above the umbilicus if there is need of later exploring the upper abdomen. The abdomen being opened a general inspection of the parts should be made but a general indiscriminate handling of the intestines is absolutely contra-indicated. Every coil of the intestines should be carefully and gently lifted, when the perforations are being looked for.

There may be much blood stained fluid and intestinal contents in the abdominal cavity, and a rapid cleansing by means of sponges is necessary. I do not believe in flushing the abdomen in these gunshot injuries. I think it only serves to distribute infection to uninfected parts.

The intestines should be picked up with a piece of gauze and methodically and gently inspected. A little bubbling of froth or a sizzling noise may be enough to direct your attention to the perforation particularly if it is small.

As each perforation is discovered it is sewed up, being particular to surround the mesentery and rest of the intestines from contamination. Each perforation should be closed

with a double layer of sutures, the first layer embracing all the coats of the intestines, the second only the peritoneal and muscular layers.

Both surfaces of the gut should be carefully inspected because usually the ball goes entirely through both anterior and posterior or lateral walls. In some cases, however, the ball may remain in the lumen of the gut and be passed at a later day in the stool.

In a great many cases, particularly when the solid organs of the abdomen (liver and spleen) and the mesentery have been perforated the movements of the surgeon are greatly hampered by copious amounts of blood stained fluid in the peritoneal cavity. No sooner is the cavity sponged out than it rapidly fills up again, obscures the intestines and prevents the surgeon from discovering just where the hemorrhage is occurring. In such an instance "The Sucker" which is attached to a faucet acts admirably and very materially assists in clearing the peritoneal cavity and keeps it clean for the surgeon's work.

After searching the abdomen and closing the perforations, copious drainage should be instituted. The patient should have at least two drainage tubes, one in the median incision and one in either flank. As many as five or six tubes can be inserted, and I believe that the more drainage in those cases the better the patient gets along. The abdomen is closed in the usual way layer for layer, or if the patient is badly shocked by through and through silkwork gut sutures.

Report of a Case Fourteen Perforations of Intestines and Mesentery—Operation Recovery.

The patient was a Negro—male,

27 years old, who was admitted in Roper Hospital at 2:30 a. m., of August 17, 1913. His friends gave a history of his having been shot by another negro on James Island about 11 p. m., of August 16, 1913. He was admitted then about three hours and a half after the injury.

Examination showed two pistol shot wounds, the first about one inch and a half to the right of the umbilicus on a line to the Ant. Sup. Spin. process of the Ilium. The second wound was just below and to the right of the Ensiform Cartilage. The patient seemed to be in considerable shock which was augmented by his ride of six miles in a buggy to reach the hospital. His temperature on admittance was 98 degrees and pulse one hundred, respiration thirty. His abdomen was not distended, but he was excessively tender over all parts of it. The operating room was immediately prepared and an exploratory laparotomy through the usual median incision was performed.

As soon as the peritoneum was opened, we found the cavity full of blood clots as well as fresh red blood. By aid of the sucker and sponges I kept the abdomen fairly dry. I found after awhile that the bleeding was coming from one of the perforations in the mesentery about the size of a quarter.

We found in all eleven perforations of the Jejunum and Ileum and three perforations of the mesentery, these perforations ranging from size of a ten cent piece up to the size of a quarter. Each intestinal perforation, we sutured with a double suture (Linen) the first including all coats of the intestines on each side and the second only the peritoneal and muscular coats. Before and after suturing each perforation it was firmly

but gently sponged with alcohol the rest of the intestines being covered and protected from infection by pads.

The abdominal wall was closed in the usual manner after inserting two drains of one half inch rubber tubing. The first tube being placed in the lower angle of the incision and the second in the right flank through a stab wound.

The patient was returned to bed badly shocked and placed in Fowler's Position and a continuous proctoclysis ordered. Likewise hypodermics of Adrenalin Chloride and Strychnine alternating with Spar-teine Sulphate were given every four hours.

After twelve to fourteen hours, the patient recovered from the shock and during the third, fourth, and fifth day, his abdomen became very tense and tympanitic. This was controlled by high Enemeta of Oggall and medicated Enemeta of Salts, Glycerine, and Turpentine given T.

I. D. Also Spirits of Turpentine was given in ten minim doses internally every four hours.

Both wounds discharged freely, particularly the drain in the right flank and I believe the free drainage instituted was probably an important factor in saving of his life.

An interesting and at the same time a remarkable fact in connection with the case was the passage of the bullet in one of the stools of the patient on the fifth day after the operation. This explains the reason why we had an odd number of intestinal perforations and shows that the bullet pierced one wall of the intestines, did not emerge but remained in the lumen of the gut.

The patient made a smooth and uneventful recovery from the sixth day, sat up on the sixteenth day and was ready to be discharged from the hospital on the twenty-third day after the operation.

SOCIETY REPORTS

AIKEN.

On Monday, October 27th, the Aiken County Medical Society met in its hall at the Theater. A large number of the members were present and entered very enthusiastically in the discussion of the two papers read.

The first paper read was by Dr. T. G. Croft, subject: "Antitoxemia and Acidosis," which proved of much interest to the meeting.

The discussion was taken up by the following members: Drs. Moore,

Walden, Ray, Teague, Townes, Milner and Hamilton.

The second paper read was by Walden, of North Augusta, subject: "Nephritis."

After the scientific session the members participated in a delightful little lunch, furnished in the hall. Dr. Hammon, the president, presided with his usual grace. Dr. Marion Wyman, the secretary, having left Aiken, Dr. Thos. Hutson was elected in his place. The next meeting is to be held at the same place the third Monday in November.

T. G. CROFT, *Reporter.*

FOURTH DISTRICT MEDICAL ASSOCIATION.**ANDERSON.**

The Fourth District Medical Association which met at Anderson November 25th, was a marked success. The Anderson County Society left no stone unturned towards this end. The attendance was highly satisfactory to the officers, numbering about 75 or 80.

The papers were all given close attention and on every hand the readers were complimented for the evident care with which the contributions had been prepared.

There were some instructive clinical cases presented and various members visited the hospital to see further clinical demonstrations.

The dinner was by no means the least enjoyable part of the program, and however diffident a few of the members may have appeared at the literary feast, all reserve vanished at the mere mention of barbecued meat, etc.

The program follows:

Divine Invocation.—Rev. John F. Vines, D. D., Anderson.

Address of Welcome.—Gen. M. L. Bonham, Anderson.

Response.—Dr. C. B. Earle, Greenville.

Ascaris Lumbricoides.—Dr. Baxter Haynes, Spartanburg.

Some Accessory Facts to Eye, Ear, Nose and Throat Work of Interest to All Physicians.—Dr. L. O. Mauldin, Greenville.

Fracture-Dislocation of the Seventh Cervical Vertebra.—Dr. H. R. Black, Spartanburg.

Report of Case of Cervical Adenitis.—Dr. D. L. Smith, Spartanburg.

A Brief Report of What the Spartanburg County Medical Society is

Doing for the Present Pellagra Situation.—Dr. J. L. Jeffries, Spartanburg.

The Interpretation of Some Blood Findings.—Dr. T. R. W. Wilson, Greenville.

Essayist Greenville Medical Society.—Constipation from a Surgical Standpoint.—Dr. George T. Tyler, Greenville.

Essayist Anderson Medical Society.—Vasostomy for Epididymitis.—Dr. C. F. Ross, Anderson.

Question Box.

The next meeting will be held at Seneca.

E. A. HINES,
Reporter.

CHARLESTON.

The Medical Society of South Carolina (Charleston County), held a meeting at its hall, October, 1913, which was well attended and full of interest. After transacting several matters of a business nature, the paper of the evening was read by Dr. Baker, the title being *Appendicitis Complicating Pregnancy*. He reviewed the subject and reported six cases.

The paper was discussed by Drs. Buist, Sparkman and Cornell.

Under *Medical News*, Dr. Sosnowski reported having seen and removed an appendix of seven inches. It extended from McBurney's point to the under surface of the gall bladder.

Dr. Sparkman demonstrated a uterus containing in its wall several fibroids. He discussed the details of the operation which were unusually difficult and included the anastomosing of a ureter.

Dr. Porcher referred to the case of neuralgia due to bulbar enlargement of the inferior turbinate which he

had previously reported. Upon looking up the literature, he finds that the condition while uncommon is not so rare as he thought.

Dr. Sparkman briefly reviewed the work done during the summer by the visiting staff of the Roper Hospital. He stated that the staff had been faithful and had rendered good service.

Adjournment followed.

The Medical Society held a meeting October 15th, the president, Dr. J. C. Mitchell, being in the chair.

At the request of the members, Dr. J. L. Dawson gave a resume of his recent trip abroad as a delegate to the International Medical Congress. He spoke of the distinguished men who were present and touched upon a few of the papers heard. Then he spoke of some new work that is being carried out in Paris in the field of Pulmonary Tuberculosis.

Upon motion the thanks of the society were extended to Dr. Dawson for his charming address. After quite a number of questions had been asked and a reply given, the society adjourned.

R. M. POLLITZER, M. D.,
Corresponding Secretary.

LEXINGTON.

The Lexington County Medical Society of which Dr. R. H. Timmerman is president and Dr. J. J. Wingard secretary, met in the offices of Drs. R. H. and W. P. Timmerman. Some interesting clinical cases were exhibited and discussed.

Dr. F. P. Byrd read a paper on Oral Hygiene. Dr. W. P. Timmerman on the care of the Parturient Women. Dr. A. D. Morgan, of Perry, on Hospital Idea. Dr. Wm. Wes-

ton, of Columbia, on Pellagra in the Young.

They were entertained with dinner at the Commercial Hotel. After-dinner speeches were made by Dr. P. M. Connor, of Saluda, Dr. J. J. Wingard, of Lexington, Dr. A. D. Morgan, of Perry, Prof. T. M. Seawell, Dr. Wm. Weston, of Columbia. Dr. W. T. Gibson was unavoidably detained and hence was not present.

Suitable resolutions were passed upon the death of one of our best members, Dr. Eleazer, of Peak.

The question of payment for examination for life insurance was freely discussed by various ones and it was agreed to require the usual five dollars for all such examinations whether for old line companies or fraternal organizations.

Dr. J. C. Nickolson, of Leesville, was elected president for next year. Dr. J. R. Sanford, of Swansea, vice-president.

Dr. J. J. Wingard, who has been secretary for the past ten years was re-elected unanimously.

The usual committees will be appointed later.

The next meeting of the society will be at Lexington.

After adjourning the visiting physicians were given automobile rides around our little town.

W. P. TIMMERMAN,
Reporter.

PICKENS.

The regular monthly meeting of Pickens County Medical Society met Nov. 5 1913. Dr. J. L. Valley read a very interesting paper on Appendicitis. Dr. Valley's paper was the cause of quite a lengthy discussion by Drs. Tripp, Wyatt and Bolt; Dr. Wyatt, the president, complimented

Dr. Valley very highly for his excellent paper.

Dr. C. N. Wyatt was unanimously elected essayist for the Fourth District Association which meets at Anderson, S. C., Nov. 25, 1913.

The next meeting of the society

will be devoted to subjects relative to the advance of profession from a business standpoint.

An attractive program will be arranged.

R. J. GILLILAND,
Secretary.

PUBLIC HEALTH

OPEN AIR SCHOOLS FOR HEALTHY CHILDREN.

An interesting experiment was made last year in one of the public schools of Philadelphia in order to determine what advantage, if any, there was to normal, not tuberculous or near tuberculous, child in an open-air school life. "Two rooms were selected, having each about the same number of children of the same grade and age, of the same social standing, and living under similar home conditions. In one room the windows were kept widely opened, top and bottom, and the artificial heat was shut off except when the temperature fell below 50 degrees F. The other room was ventilated and heated in the usual way and the windows were kept closed on most days. In the room with open windows the children wore extra wraps and had frequent drills and exercises. Dr. Walter W. Roach, the medical inspector, by whom the experiment was made (*American Journal of Public Health*, Vol. III, No. 2), found at the end of the school year that the pupils in the closed-window room had gained an average of one pound in weight, while those in the open window room had gained two pounds. The latter kept wholly free from colds, were

quicker to learn, more alert, needed less review work, were better behaved, and were more regular in attendance. The superiority of the children in this room was so noticeable, not only to the medical inspector but to the visiting school board, that the latter authorized the establishment of open-window classes in several other Philadelphia schools. It will be interesting to know the result of this second year's trial of the fresh-air school for healthy children."

This abstract from the Medical Record recalls the investigation made a year or so ago in regard to the ventilation of some of the Cincinnati schools—an investigation undertaken at the instigation of the Academy of Medicine. Unless we are misinformed, the investigators have never made a final report on this subject, although their preliminary report showed by laboratory methods that the rooms heated and ventilated by the plenum system exhibited by a lower CO₂ content, or at least no higher proportion of CO₂ than rooms ventilated by open windows. The school authorities, curiously enough, two or three years ago refused the petition of about seventy-five parents for an open-air room in the Avondale School without giving any reason for the refusal. As what we might

call the therapeutic or clinical test is, after all, the final word in matters of this kind, the experience of educators, medical school inspectors and parents who have had to do with children in open-air or open-window schools must be given the preponderant weight. Marvels have been performed in the Cincinnati schools, as in innumerable other city schools, in the open-air management of tuberculosis and of anemic children, and now it is only fair to give those chil-

dren who are as yet neither anemic nor tuberculous a chance to get all the oxygen that is coming to them, both for the sake of the rapid formative processes that are going on within their little bodies, and for the sake of that freedom from brain depression, that mental exhilaration that comes with fresh air and can be gotten legitimately in no other way. Surely, the time is coming soon, when all schools in the United States will be open-air schools.—*Lancet Clinic.*

EXCERPTS FROM LAY PRESS

DR. WISE DIES.

At the Age of 75 years—Resident of Trenton, S. C.

Trenton, Nov. 4.—Dr. G. W. Wise, one of the oldest and best known citizens of the county, died at the Columbia hospital yesterday afternoon at the age of 75 years.

He is survived by two sons, Geo. and Wallace Wise of this place, and one daughter, Mrs. Adams of Edgefield.

DR. J. J. KIRKSEY.

Special to The State.

Saluda, Nov. 19.—Dr. J. J. Kirksey died at his home here this morning after an illness extending over two years. Since he was partially paralyzed more than two years ago, he has been in a helpless condition practically.

The burial will take place at the village cemetery in this town tomorrow about noon.

Coming to this county 20 years ago he devoted himself to the practice of medicine. His practice was

a large one from the outset and he was very successful in his work. While he had his faults he was a man of tender heart and many are his debtors for acts of kindness.

PELLAGRA HOSPITAL NEEDS MORE MONEY.

Will Have to Close Unless Patients Pay or Legislature Gives Appropriation.

Special to The State.

Anderson, Nov. 25.—That the Pellagra hospital at Spartanburg will be compelled to close its doors unless parties are able to pay high prices for treatment or unless the next general assembly will make a liberal appropriation for the support of the hospital was brought out in the paper of Dr. J. L. Jeffries of Spartanburg, read before the annual convention of the Fourth District Medical Association. Many interesting addresses marked the convention which closed tonight with the selection of Seneca as the next meeting place. More than 75 delegates from Anderson, Greenville, Pickens, Oconee, Spartanburg and Union were

present. The election of officers resulted as follows: Dr. J. O. Sanders of Anderson, president; Dr. J. L. Bolt of Pickens, vice-president; A. D. Cudd of Spartanburg, secretary and treasurer.

TO EXAMINE CHILDREN.

Chester Physicians and Dentists Will Co-operate.

Special to The State.

Chester, Nov. 26.—The Chester County Medical and Dental Associations convened jointly yesterday evening in the offices of Dr. J. G. Johnston. It was definitely decided by both of the associations to co-operate with the trustees of the Chester public schools in an effort to have all of the pupils examined by the physicians, surgeons and dentists. It was thought that the initial examination should be held at the beginning of each term and thereafter every quarter, and oftener if need be. This service will be given gratuitously by the associations.

MEDICAL COLLEGE FACULTY CHANGES.

Dr. Chas. P. Aimar Elected to Succeed Late Dr. Rees—Dr. A. J. Jervey Promoted—Dr. Daniel L. Maguire Takes His Place as Assistant Professor of Surgery.

News and Courier, Nov. 26th:

Dr. Robert Wilson, Jr., dean, and Oscar W. Schleeter, secretary of the Medical College of South Carolina, returned last night from Columbia, where they attended a meeting of the board of trustees in the office of Gov-

ernor Blease, the following being present: Gov. Cole L. Blease, president; Oscar W. Schleeter, secretary; Superintendent of Education J. E. Swearingen and Drs. J. B. Black, D. R. Sturkie, T. G. Croft, S. B. Fishburne, Charles Sims, W. A. Tripp, J. M. Davis, W. W. Fennell, R. E. Hughes, G. W. Houseal and Robert Wilson, Jr., dean.

Many matters pertaining to the college were discussed, including the consideration of a budget covering the expenses which will be needed for the proper administration and maintenance of the college during the ensuing year. The budget was prepared by a committee appointed for the purpose by the president of the board, and to act in conjunction with the dean. This matter will be taken before the legislature at the next session for the purpose of giving to that body a tentative estimate of what moneys will be required to properly equip and maintain the college as a State institution.

The board adopted a resolution by the board expressing its deep sympathy for the loss by death of Dr. Chas. M. Rees, who held the chair of general surgery on the college faculty, a copy to be transmitted to his family.

It being necessary to fill the vacancy existing in the chair of general surgery caused by the death of Dr. Rees, the board immediately proceeded with the election of a professor of general surgery. Upon nomination Dr. Allen J. Jervey was elected to succeed Dr. Aimar as professor of the principles of surgery and surgical pathology, and Dr. Daniel L. Maguire to succeed Dr. Jervey as assistant professor of surgery.

BOOK REVIEW

The following books have been reviewed in the Journal in 1913:

Skin Grafting, by Freeman.—C. V. Mosby Co., St. Louis. International Clinics, edited by Cattell.—J. B. Lippincott & Co., Philadelphia. The Practical Medicine Series, by Head.—The Year Book Publishing Co., Chicago. Golden Rules of Surgery, by Bernays.—C. V. Mosby Co., St. Louis. E. Merck's Annual Report, by E. Merck.—Chemical Works, Darmstadt. The Practical Medicine Series, by Head.—The Year Book Publishers, Chicago. Surgical Clinics of John B. Murphy (December).—W. B. Saunders Co., Philadelphia. Handbook of Diseases of the Rectum, by Hirschman.—C. V. Mosby Co., St. Louis. Psychanalisis, by Brill.—W. B. Saunders Co., Philadelphia. Principles and Practice of Obstetrics, by Joseph B. De Lee.—W. B. Saunders Co., Philadelphia. The Surgical Clinics of John B. Murphy (February).—W. B. Saunders Co., Philadelphia. International Clinics.—J. B. Lippincott & Co., Philadelphia. Keen's Surgery, by Keen.—W. B. Saunders Co., Philadelphia. Golden Rules of Gynecology, by Norberg.—C. V. Mosby Co., St. Louis. Men, Manners and Medicine, by Peregrinus.—W. M. Leonard, Boston, Mass. Epidemic Cerebro-Spinal Meningitis, by Sophian.—C. V. Mosby Co., St. Louis. The Surgical Clinics of John B. Murphy (April).—W. B. Saunders Co., Philadelphia. The Operating Room and Patient, by Fowler.—W. B. Saunders Co., Philadelphia. Diseases of the Eye, by de Schweinitz.—W. B. Saunders Co., Philadelphia. Gonorrhœa in Women, by Norris.—W. B. Saunders Co., Philadelphia. Collected Papers by the Staff of St. Mary's Hospital (Mayo Clinic), 1912.—W. B. Saunders Co., Philadelphia. Blood Pressure, by Faught.—W. B. Saunders Co., Philadelphia. The Surgical Clinics of John B. Murphy (June).—W. B. Saunders Co., Philadelphia. International Clinics, edited by Cattell.—J. B. Lippincott & Co., Philadelphia. The Practical Medicine Series, by Head.—The Year Book Publishers, Chicago. The Practical Medicine Series, by Head.—The Year Book Publishers, Chicago. The Narcotic Drug Diseases, by Pettey.—

F. A. Davis Co., Philadelphia. Vaccine and Serum Therapy, Schorer.—C. V. Mosby Co., St. Louis. Laboratory Methods, by Williams.—C. V. Mosby Co., St. Louis. New and Non-Official Remedies, 1913.—Press of American Medical Association. Chloride of Lime in Sanitation, by Hooker.—John Wiley & Sons, New York. Genitourinary Diagnosis and Therapy, by Portner.—C. V. Mosby Co., St. Louis. The Practical Medicine Series, by Head.—The Year Book Publishers, Chicago. The Practical Medicine Series, by Mix.—The Year Book Publishers, Chicago. Surgical Clinics of John B. Murphy (August).—W. B. Saunders Co., Philadelphia. The Practical Medicine Series, by Mix. Pediatrics, by Abt. Orthopedic Surgery, by Ridlon.—The Year Book Publishers, Chicago. Malaria, Etiology, Pathology, by Henson.—C. V. Mosby Co., St. Louis. Marriage and Genetics, Reed.—The Galton Press, Cincinnati, Ohio. Preventive Medicine and Hygiene, by Rosenau.—D. Appleton & Co., New York. Diseases of Women, by Reed.—D. Appleton & Co., New York. Surgical Clinics of John B. Murphy (October).—W. B. Saunders Co., Philadelphia. Diagnosis Methods, Chemical, Bacteriological and Microscopical, Webster.—P. Blakiston's Son & Co., Philadelphia. The Diseases of Children, by Tuley.—C. V. Mosby Co., St. Louis. International Clinics, edited by Cattell.—J. B. Lippincott & Co., Philadelphia. Hospital of the Protestant Episcopal Church of Philadelphia, Press of Wm. J. Dornan. A Clinical Manual of Mental Diseases, by Dercun.—W. B. Saunders Co., Philadelphia.

THE DIFFICULTIES AND EMERGENCIES OF OBSTETRIC PRACTICE by Comyns Berkeley, M. A., M. D., B. C., Cantab, F. R. C. P., Lond., M. R. C. S., Eng. Obstetric and Gynaecological Surgeon to the Middlesex Hospital; Surgeon to In-patients, Chelsea Hospital for Women; Senior Obstetric Surgeon, City of London Lying-in Hospital; Gynaecological Surgeon, Eltham and Mottingham Hospital; Lecturer on Obstetrics and Gynaecology, Middlesex Hospital Medical School; Examiner in Obstetrics and Gyn-

aecology to the University of Oxford and the Conjoint Board of England, and Victor Bonney, M. S., M. D., B. Sc., Lon., F. R. C. S. Eng., M. R. C. P., Lon., Assistant Obstetric and Gynaecological Surgeon to the Middlesex Hospital; Lecturer on Practical Obstetrics, Middlesex Hospital Medical School; Surgeon to the Chelsea Hospital for Women; Gynaecological Surgeon to the Miller Hospital, The Putney Hospital and The Hospital for Nervous Diseases, Maida Vale; Late Hunterian Professor, Royal College of Surgeons of England. With 287 illustrations. Philadelphia, P. Blakiston's Son & Co., 1012 Walnut Street, 1913.

This is an English work of more than passing importance. We have had occasion at other times to recommend the purchase of foreign books.

The volume under review is well worth the price. The diseases peculiar to the obstetric patient have been given marked study and exhaustively treated. It is rare to find a book in which all the illustrations are original as is stated by the authors of this work. This fact alone adds a freshness to the whole subject worth considering. The operative procedures are cleverly shown in almost every instance.

DORLAND'S AMERICAN ILLUSTRATED MEDICAL DICTIONARY.—New (7th) Edition, Revised and Enlarged. Dorland's American Illustrated Medical Dictionary. A new and complete dictionary of terms used in Medicine, Surgery, Dentistry, Pharmacy, Chemistry, Veterinary Science, Nursing, Biology and kindred branches; with new and elaborate tables. Seventh Revised Edition. Edited by W. A. Newman Dorland, M. D. Large octavo of 1107 pages, with 331 illustrations, 119 in colors. Containing over 5,000 more terms than the previous edition. Philadelphia and London: W. B. Saunders Company, 1913. Flexible Leather, \$4.50 net; thumb indexed, \$5.00 net.

The first edition of Dorland appeared in 1900 and since that time seven editions have been issued to meet the growing demands.

Five thousand new terms have been added to the present edition.

A good dictionary such as this one we have found indispensable. The recent past has been so prolific in new words that there is great need for an up-to-date dictionary

every day by almost every reader or writer of medical literature. This is quite a handy volume. The paper is thin, the binding flexible and the print satisfactory. The illustrations are numerous and unusually good. The chapter on Tests is particularly complete. The Posologic and Therapeutic Table is highly creditable also.

MATERIA MEDICA, PHARMACOLOGY, THERAPEUTICS AND PRESCRIPTION WRITING.—*Materia Medica Pharmacology, Therapeutics and Prescription Writing.* For Students and Practitioners. By Walter A. Bastedo, Ph.G., M. D., Associate in Pharmacology and Therapeutics at Columbia University. Octavo of 602 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, \$3.50 net.

Bastedo has treated his subjects in a clear-cut definite way which at once attracts the reader.

The book is based on the author's lectures at Columbia University. It is another work the reader should enjoy as it is brief yet comprehensive. Most of the therapeutic measures in use today have been taken up from the modern point of view.

A TEXT-BOOK OF THE PRACTICE OF MEDICINE.—Eleventh Edition Thoroughly Revised. A Text-Book of the Practice of Medicine. By James M. Anders, M. D., Ph.D., LL. D., Professor of Medicine and Clinical Medicine, Medico-Chirurgical College, Philadelphia. Eleventh Edition Thoroughly Revised. Octavo of 1335 pages, fully illustrated. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, \$5.50 net; Half Morocco, \$7.00 net.

Anders has long been an unquestioned authority on Practice of Medicine. This volume was copyrighted September, 1913, so it is undoubtedly up-to-date, and it is the eleventh edition.

Nearly every subject has been given an exhaustive consideration from several points of view.

Pneumonia has been carefully revised and so has Tuberculosis.

Sixty-seven pages have been given over to Typhoid Fever and the author's treatment is eminently safe and conservative. While the liberal feeding method has been mentioned and proper credit given to those-

who advise it, Anders evidently does not favor it as a rule, for he says: the best article of food is milk, though he by no means confines himself to this form of liquid diet.

Again, alcohol appears to meet the author's approval as the best stimulant in typhoid fever and pneumonia. The author holds that the tub bath gives the lowest mortality in typhoid fever.

We were disappointed in the article on Pellagra which has not been given the space or consideration it deserves as a serious American problem.

The book generally speaking is deservedly about the most popular single volume work on Practice in this country today.

PRINCIPLES OF SURGERY.—Principles of Surgery. By W. A. Bryan, A. M., M. D., Professor of Surgery and Clinical Surgery at Vanderbilt University, Nashville, Tenn. Octavo of 677 pages, with 224 Original Illustrations. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, \$4.00 net.

We were very much interested in Bryan's Principles of Surgery. There is much to commend the work to the attention of not only the student but the physician or surgeon.

We should never get away from the basic principles of Surgery and we cannot go over the ground too often.

This is a book one can easily read from cover to cover in a short while and without losing interest. It is especially suited for the needs of the general practitioner.

ANATOMY AND DISSECTOR IN ABSTRACT.—By Stewart L. McCurdy, A. M., M. D., Professor of Anatomy and Surgery (Dental Department), University of Pittsburgh. Fourth Edition. Medical Abstract Publishing Company, 8103 Jenkins Arcade Building, Pittsburgh, Pa.

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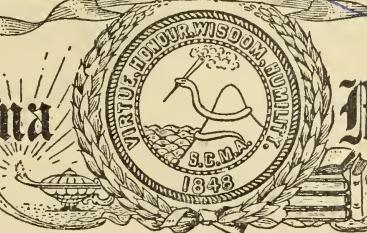
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